This manual contains specific guidance for reporting 2016 Physician Quality Reporting System (PQRS) Measures Groups. Measures Groups are a subset of four or more PQRS measures that have a particular clinical condition or focus in common. Only those measures groups defined in this document can be utilized when reporting the measures group options. All other individual measures that are included in PQRS but not defined in this manual as included in a measures group cannot be grouped together to define a measures group.
Twenty-five (25) measures groups have been established for 2016 PQRS: Diabetes, Chronic Kidney Disease (CKD), Preventive Care, Coronary Artery Bypass Graft (CABG), Rheumatoid Arthritis (RA), Hepatitis C, Heart Failure (HF), Coronary Artery Disease (CAD), HIV/AIDS, Asthma, Chronic Obstructive Pulmonary Disease (COPD), Inflammatory Bowel Disease (IBD), Sleep Apnea, Dementia, Parkinson’s Disease, Cataracts, Oncology, Total Knee Replacement (TKR), General Surgery, Optimizing Patient Exposure to Ionizing Radiation (OPEIR), Sinusitis, Acute Otitis Externa (AOE), Cardiovascular Prevention, Diabetic Retinopathy, and Multiple Chronic Conditions. As required by applicable statutes, through formal notice-and-comment rulemaking in 2015, these 25 measures groups consist of individual measures established for use in the 2016 PQRS. An eligible professional may choose to report one or more measures groups through registry-based submission. Note that denominator coding has been modified when necessary from the original individual measures specified by the measure developer to allow for implementation in PQRS as a measures group. An overview for each measures group is included in this manual followed by specific reporting instructions for each measure within the group.

Please note, eligible professionals may choose to pursue more than one 2016 PQRS option. This manual describes how to implement 2016 reporting of PQRS measures groups to facilitate satisfactory reporting of quality-data by eligible professionals who wish to participate under this reporting alternative. Additional information describing how to implement 2016 measures groups can be found in the 2016 Physician Quality Reporting System (PQRS) Getting Started with Measures Groups at: 2016 Physician Quality Reporting System (PQRS) Getting Started with Measures Groups.

Note: Additional information on how to avoid PQRS payment adjustments can be found through supporting documentation available on the CMS website at: Payment Adjustment Information.

Measures Groups Reporting Method:

20 Patient Sample Method via Registry – 12-month reporting period January 1 through December 31:

- A participating eligible professional must report on all applicable measures within the selected measures group for a minimum sample of 20 unique patients (or procedures as applicable), a majority of which must be Medicare Part B FFS patients, who meet patient sample criteria for the measures group. If the eligible professional does not have at least 11 unique Medicare Part B FFS patients who meet patient sample criteria for the measures group, the eligible professional will need to choose another measures group or choose another reporting option. Please refer to the 2016 Physician Quality Reporting System (PQRS) Implementation Guide to determine the proper reporting option.

- The patient sample for the 20 Patient Sample Method is determined by diagnosis and/or specific encounter parameters common to all measures within a selected measures group. All applicable measures within a group must be reported for each patient within the sample that meets the criteria (e.g., age or gender) required in accordance with this manual. For example, if an eligible professional is reporting on the Preventive Care Measures Group, the Screening for Osteoporosis for Women Aged 65 -85 Years of Age measure would only need to be reported on women age 65-85 years within the eligible professional’s patient sample.

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group unless the measure is an inverse measure in which case a 0% would be considered satisfactorily reporting. An inverse measure with a 100% performance rate will not be counted as satisfactorily reporting the measures group.
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DIABETES MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN DIABETES MEASURES GROUP:
#1 Diabetes: Hemoglobin A1c Poor Control
#110 Preventive Care and Screening: Influenza Immunization
#117 Diabetes: Eye Exam
#119 Diabetes: Medical Attention for Nephropathy
#126 Diabetes Mellitus: Diabetic Foot and Ankle Care, Peripheral Neuropathy – Neurological Evaluation
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

**G8485:** I intend to report the Diabetes Measures Group

- Report the patient sample method:

  **20 Patient Sample Method via registries:** 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Diabetes Measures Group are patients aged 18 through 75 years with a specific diagnosis of diabetes accompanied by a specific patient encounter:

  **The following diagnosis codes indicating diabetes:**


  **Accompanied by:**

  **One of the following patient encounter codes:** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99349, 99350, G0402, G0438, G0439

- To satisfactorily report the Diabetes Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2015-2016 influenza
season OR between October and December for the 2016-2017 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate.

- Measure #126 is not reported (does not apply) when the clinician documented that patient was not an eligible candidate for lower extremity neurological exam measure, for example patient bilateral amputee, patient has condition that would not allow them to accurately respond to a neurological exam (dementia, Alzheimer’s, etc.), patient has previously documented diabetic peripheral neuropathy with loss of protective sensation

- Instructions for qualifying numerator option reporting for each of the measures within the Diabetes Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

**Composite QDC G8494:** All quality actions for the applicable measures in the Diabetes Measures Group have been performed for this patient

- This measures group contains one or more inverse measures. An inverse measure is a measure that represents a poor clinical quality action as meeting performance for the measure. For these measures, a lower performance rate indicates a higher quality of clinical care. Composite codes for measures groups that contain inverse measures are only utilized when the appropriate quality clinical care is given.

The composite code for this measures group may be reported when codes in the summary table below are applicable for reporting of each measure within the measures group.

**Table 2 - QDC Options**

<table>
<thead>
<tr>
<th>Measure</th>
<th>#1*</th>
<th>#110</th>
<th>#117</th>
<th>#119</th>
<th>#126</th>
<th>#226</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDC options for acceptable use of the composite QDC</td>
<td>3044F or 3045F</td>
<td>G8482</td>
<td>2022F or 2024F or 2026F or 3072F</td>
<td>3060F or 3061F or 3062F or 3066F or G8506</td>
<td>G8404</td>
<td>4004F or 1036F</td>
</tr>
</tbody>
</table>

*Indicates an inverse measure

- **Measure Group Reporting Calculations:**

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients
according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

When a lower rate indicates better performance, such as Measure #1, a 0% performance rate will be counted as satisfactorily reporting (100% performance rate would not be considered satisfactorily reporting).

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #1 (NQF 0059): Diabetes: Hemoglobin A1c Poor Control -- National Quality Strategy
Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients 18-75 years of age with diabetes who had hemoglobin A1c > 9.0% during the measurement period.

NUMERATOR:
Patients whose most recent HbA1c level (performed during the measurement period) is > 9.0%

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Patient is numerator compliant if most recent HbA1c level >9% or is missing a result or if an HbA1c test was not done during the measurement year. Ranges and thresholds do not meet criteria for this indicator. A distinct numeric result is required for numerator compliance.

Numerator Options:
Performance Met: Most recent hemoglobin A1c level > 9.0% (3046F)
OR
Performance Met: Hemoglobin A1c level was not performed during the measurement period (12 months) (3046F with 8P)
OR
Performance Not Met: Most recent hemoglobin A1c (HbA1c) level < 7.0% (3044F)
OR
Performance Not Met: Most recent hemoglobin A1c (HbA1c) level 7.0 to 9.0% (3045F)
Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization -- National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

**NUMERATOR:**
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

**Numerator Instructions:**
- If reporting this measure between January 1, 2016 and March 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2015 or January, February, and March of 2016 for the flu season ending March 31, 2016.
- If reporting this measure between October 1, 2016 and December 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2016 for the flu season ending March 31, 2017.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2015-2016 flu season OR 2016-2017 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, G8482 should be reported.

**Definition:**
**Previous Receipt** - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

**NUMERATOR NOTE:** The numerator for this measure can be met by reporting either administration of an influenza vaccination or that the patient reported previous receipt of the current season’s influenza immunization. If the performance of the numerator is not met, a clinician can report a valid performance exclusion for having not administered an influenza vaccination. For clinicians reporting a performance exclusion for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

**Numerator Options:**

**Performance Met:**
Influenza immunization administered or previously received (G8482)

**OR**

**Other Performance Exclusion:**
Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) (G8483)

**OR**

**Performance Not Met:**
Influenza immunization was not administered, reason not given (G8484)
Measure #117 (NQF 0055): Diabetes: Eye Exam -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients 18-75 years of age with diabetes who had a retinal or dilated eye exam by an eye care professional during the measurement period or a negative retinal or dilated eye exam (no evidence of retinopathy) in the 12 months prior to the measurement period.

NUMERATOR:
Patients with an eye screening for diabetic retinal disease. This includes diabetics who had one of the following: A retinal or dilated eye exam by an eye care professional in the measurement period or a negative retinal or dilated exam (no evidence of retinopathy) by an eye care professional in the year prior to the measurement period.

NUMERATOR NOTE: The eye exam must be performed or reviewed by an ophthalmologist or optometrist. Alternatively, results may be read by a qualified reading center that operates under the direction of a medical director who is a retinal specialist.

Numerator Options:

Performance Met:
Dilated retinal eye exam with interpretation by an ophthalmologist or optometrist documented and reviewed (2022F)

OR

Performance Met:
Seven standard field stereoscopic photos with interpretation by an ophthalmologist or optometrist documented and reviewed (2024F)

OR

Performance Met:
Eye imaging validated to match diagnosis from seven standard field stereoscopic photos results documented and reviewed (2026F)

OR

Performance Met:
Low risk for retinopathy (no evidence of retinopathy in the prior year) (3072F)*

*NOTE: This code can only be used if the encounter was during the measurement period because it indicates that the patient had “no evidence of retinopathy in the prior year”. This code definition indicates results were negative, therefore a result is not required.

OR

Performance Not Met:
Dilated eye exam was not performed, reason not otherwise specified (2022F or 2024F or 2026F with 8P)

DESCRIPTION:
The percentage of patients 18-75 years of age with diabetes who had a nephropathy screening test or evidence of nephropathy during the measurement period.

NUMERATOR:
Patients with a screening for nephropathy or evidence of nephropathy during the measurement period.

Numerator Instructions: This measure is looking for a nephropathy screening test or evidence of nephropathy.

Numerator Options: Performance Met:
Positive microalbuminuria test result documented and reviewed (3060F)
OR Performance Met:
Negative microalbuminuria test result documented and reviewed (3061F)
OR Performance Met:
Positive macroalbuminuria test result documented and reviewed (3062F)
OR Performance Met:
Documentation of treatment for nephropathy (eg, patient receiving dialysis, patient being treated for ESRD, CRF, ARF, or renal insufficiency, any visit to a nephrologist) (3066F)
OR Performance Met:
Patient receiving angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy (G8506)

OR Performance Not Met:
Nephropathy screening was not performed, reason not otherwise specified (3060F or 3061F or 3062F with 8P)
DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of diabetes mellitus who had a neurological examination of their lower extremities within 12 months

NUMERATOR:
Patients who had a lower extremity neurological exam performed at least once within 12 months

Numerator Instructions: Evaluation of neurological status in patients with diabetes to assign risk category and therefore have appropriate foot and ankle care to prevent ulcerations and infections ultimately reduces the number and severity of amputations that occur. Risk categorization and follow up treatment plan should be done according to the following table:

Table 3 - Risk Categorization System:

<table>
<thead>
<tr>
<th>Category</th>
<th>Risk Profile</th>
<th>Evaluation Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Normal</td>
<td>Annual</td>
</tr>
<tr>
<td>1</td>
<td>Peripheral Neuropathy (LOPS)</td>
<td>Semi-annual</td>
</tr>
<tr>
<td>2</td>
<td>Neuropathy, deformity, and/or PAD</td>
<td>Quarterly</td>
</tr>
<tr>
<td>3</td>
<td>Previous ulcer or amputation</td>
<td>Monthly to quarterly</td>
</tr>
</tbody>
</table>

This measure may be reported by non-MD/DO clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Definition:
Lower Extremity Neurological Exam – Consists of a documented evaluation of motor and sensory abilities and should include: 10-g monofilament plus testing any one of the following: vibration using 128-Hz tuning fork, pinprick sensation, ankle reflexes, or vibration perception threshold), however the clinician should perform all necessary tests to make the proper evaluation.

Numerator Options:
Performance Met: Lower extremity neurological exam performed and documented (G8404)

OR

Performance Not Met: Lower extremity neurological exam not performed (G8405)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

**NUMERATOR:**
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

**Definitions:**
Tobacco Use – Includes use of any type of tobacco.
Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

**NUMERATOR NOTE:** In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

**Numerator Options:**

- **Performance Met:**
  Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

- **OR**
  - **Performance Met:**
    Current tobacco non-user (1036F)

- **OR**
  - **Medical Performance Exclusion:**
    Documentation of medical reason(s) for not screening for tobacco use (e.g., limited life expectancy, other medical reasons) (4004F with 1P)

- **OR**
  - **Performance Not Met:**
    Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
MEASURE #1 – DIABETES: HEMOGLOBIN A1C POOR CONTROL
RATIONALE:
Diabetes mellitus (diabetes) is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or utilize the hormone insulin. It is recognized as a leading cause of death and disability in the U.S. and is highly underreported as a cause of death. Diabetes may cause life-threatening, life-ending or life-altering complications, including poor circulation, nerve damage or neuropathy in the feet and eventual amputation. Nearly 60-70 percent of diabetics suffer from mild or severe nervous system damage (American Diabetes Association 2009).

Randomized clinical trials have demonstrated that improved glycemic control, as evidenced by reduced levels of glycohemoglobin, correlates with a reduction in the development of microvascular complications in both Type 1 and Type 2 diabetes (Diabetes Control and Complications Trial Research Group 1993; Ohkubo 1995). In particular, the Diabetes Control and Complications Trial (DCCT) showed that for patients with Type 1 diabetes mellitus, important clinical outcomes such as retinopathy (an important precursor to blindness), nephropathy (which precedes renal failure), and neuropathy (a significant cause of foot ulcers and amputation in patients with diabetes) are directly related to level of glycemic control (Diabetes Control and Complications Trial Research Group 1993). Similar reductions in complications were noted in a smaller study of intensive therapy of patients with Type 2 diabetes by Ohkubo and co-workers, which was conducted in the Japanese population (Ohkubo et al., 1995).

CLINICAL RECOMMENDATION STATEMENTS:
American Geriatrics Society (Brown et al. 2003):
For frail older adults, persons with life expectancy of less than 5 years, and others in whom the risks of intensive glycemic control appear to outweigh the benefits, a less stringent target such as 8% is appropriate. (Quality of Evidence: Level III; Strength of Evidence: Grade B)

American Diabetes Association (2009):
Lowering A1c to below or around 7% has been shown to reduce microvascular and neuropathic complications of type 1 and type 2 diabetes. Therefore, for microvascular disease prevention, the A1c goal for non-pregnant adults in general is < 7%. (Level of Evidence: A)

In type 1 and type 2 diabetes, randomized controlled trials of intensive versus standard glycemic control have not shown a significant reduction in CVD outcomes during the randomized portion of the trials. Long-term follow-up of the Diabetes Control and Complications Trial (DCCT) and UK Prospective Diabetes Study (UKPDS) cohorts suggests that treatment to A1C targets below or around 7% in the years soon after the diagnosis of diabetes is associated with long-term reduction in risk of macrovascular disease. Until more evidence becomes available, the general goal of < 7% appears reasonable for many adults for macrovascular risk reduction. (Level of Evidence: B)

Subgroup analyses of clinical trials such as the DCCT and UKPDS and the microvascular evidence from the Action in Diabetes and Vascular Disease: Preterax and Diamicron MR Controlled Evaluation (ADVANCE) trial suggest a small but incremental benefit in microvascular outcomes with A1c values closer to normal. Therefore, for selected individual patients, providers might reasonably suggest even lower A1c goals than the general goal of < 7%, if this can be achieved without significant hypoglycemia or other adverse effects of treatment. Such patients might include those with short duration of diabetes, long life expectancy, and no significant CVD. (Level of Evidence: B)

Conversely, less stringent A1c goals than the general goal of < 7% may be appropriate for patients with a history of severe hypoglycemia, limited life expectancy, advanced microvascular or macrovascular complications, and extensive comorbid conditions and those with longstanding diabetes in whom the general goal is difficult to attain.
despite diabetes self-management education, appropriate glucose monitoring, and effective doses of multiple glucose lowering agents including insulin. (Level of Evidence: C)

**MEASURE #110 – PREVENTIVE CARE AND SCREENING: INFLUENZA IMMUNIZATION**

**RATIONALE:**
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged >=6 months who do not have contraindications. Vaccination optimally should occur before onset of influenza activity in the community. Health care providers should offer vaccination soon after vaccine becomes available (by October, if possible). Vaccination should be offered as long as influenza viruses are circulating. (CDC/ACIP, 2014)

**MEASURE #117 – DIABETES: EYE EXAM**

**RATIONALE:**
Diabetes mellitus (diabetes) is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or utilize the hormone insulin. It is recognized as a leading cause of death and disability in the U.S. and is highly underreported as a cause of death. Diabetes of either type may cause life-threatening, life-ending or life-altering complications, including glaucoma and blindness. Diabetic retinopathy is the most common diabetic eye disease and causes 21,000–24,000 new cases of blindness annually. The consensus among established clinical guidelines is that patients with both types of diabetes should have an initial dilated and comprehensive eye exam soon after diagnosis. Guidelines also recommend consultation with an ophthalmologist for treatment options if a patient has any level of macular edema or diabetic retinopathy (proliferative and nonproliferative) (American Diabetes Association 2009).

**CLINICAL RECOMMENDATION STATEMENTS:**
American Diabetes Association (ADA) (2009):
- Adults and children aged 10 years or older with type 1 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist within 5 years after the onset of diabetes. (B recommendation)
- Patients with type 2 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist shortly after the diagnosis of diabetes. (B recommendation)
- Subsequent examinations for type 1 and type 2 diabetic patients should be repeated annually by an ophthalmologist or optometrist. Less frequent exams (every 2–3 years) may be considered following one or more normal eye exams. Examinations will be required more frequently if retinopathy is progressing. (B recommendation)
- Women with preexisting diabetes who are planning pregnancy or who have become pregnant should have a comprehensive eye examination and be counseled on the risk of development and/or progression of diabetic retinopathy. (B recommendation)
- Eye examination should occur in the first trimester with close follow-up throughout pregnancy and for 1 year postpartum. (B recommendation)
- Promptly refer patients with any level of macular edema, severe nonproliferative diabetic retinopathy (NPDR), or any proliferative diabetic retinopathy (PDR) to an ophthalmologist who is knowledgeable and experienced in the management and treatment of diabetic retinopathy. (A recommendation)
- Laser photocoagulation therapy is indicated to reduce the risk of vision loss in patients with high-risk PDR, clinically significant macular edema, and in some cases of severe NPDR. (A recommendation)
The presence of retinopathy is not a contraindication to aspirin therapy for cardioprotection, as this therapy does not increase the risk of retinal hemorrhage. (A recommendation)

American Geriatric Society (AGS) (Brown et al. 2003): The older adult who has new-onset DM should have an initial screening dilated-eye examination performed by an eye-care specialist with funduscopy training. (Level I, Grade B)

MEASURE #119 – DIABETES: MEDICAL ATTENTION FOR NEPHROPATHY
RATIONALE:
Diabetes mellitus (diabetes) is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or utilize the hormone insulin (National Institute of Diabetes and Digestive and Kidney Diseases 2011). It is recognized as a leading cause of death and disability in the U.S. and is highly underreported as a cause of death (National Institute of Diabetes and Digestive and Kidney Diseases 2011). Diabetes may cause life-threatening, life-ending or life-altering complications, including end-stage kidney disease. Diabetes is the primary cause of kidney failure, accounting for 44 percent of newly diagnosed cases in 2005 (National Institute of Diabetes and Digestive and Kidney Diseases 2011). Clinical guidelines recommend regular testing to evaluate urine albumin excretions and serum creatinine and the estimated glomerular filtration rate derived from serum creatinine, in addition to comparing measurements when screening for chronic kidney disease (American Diabetes Association 2009; American Association of Clinical Endocrinologists 2007).

CLINICAL RECOMMENDATION STATEMENTS:
American Diabetes Association (2009):
- Perform an annual test to assess urine albumin excretion in type 1 diabetic patients with diabetes duration of >= 5 years and in all type 2 diabetic patients, starting at diagnosis. (Level of Evidence E)
- Measure serum creatinine at least annually in all adults with diabetes regardless of the degree of urine albumin excretion. The serum creatinine should be used to estimate GFR and stage the level of chronic kidney disease (CKD), if present. (Level of Evidence E)
- In the treatment of the nonpregnant patient with micro- or macroalbuminuria, either ACE inhibitors or ARBs should be used. (Level of Evidence A)

American Association of Clinical Endocrinologists (2007): Screen all patients with diabetes mellitus for chronic kidney disease annually; screening should begin 5 years after diagnosis in patients with Type 1 diabetes mellitus (T1DM) and at the time of diagnosis in patients with Type 2 diabetes mellitus (T2DM). Testing includes:

- Measurement of albumin-to-creatinine ratio in a spot urine specimen and measurement of the estimated glomerular filtration rate derived from serum creatinine

The following are diagnostic criteria for chronic kidney disease:

- Estimated glomerular filtration rate < 60 mL/min/1.73 m2 or albumin-to-creatinine ratio >= 30 mg albumin/g creatinine
- Microalbuminuria >= 30 mg albumin/g creatinine
- Macroalbuminuria >= 300 mg albumin/g creatinine (Grade A)
- Prescribe an angiotensin-converting enzyme inhibitor or an angiotensin receptor blocker in the antihypertensive regimen in the absence of contraindications. (Grade A)

California Healthcare Foundation/American Geriatrics Society (2003): A test for the presence of microalbumin should be performed at diagnosis in patients with type 2 diabetes mellitus. After the initial screening and in the absence of previously demonstrated macro- or microalbuminuria, a test for the presence of microalbumin should be performed annually. (Level III, Grade A)
MEASURE #126 - DIABETES MELLITUS: DIABETIC FOOT AND ANKLE CARE, PERIPHERAL NEUROPATHY – NEUROLOGICAL EVALUATION

RATIONALE:
Foot ulceration is the most common single precursor to lower extremity amputations among persons with diabetes. Treatment of infected foot wounds accounts for up to one-quarter of all inpatient hospital admissions for people with diabetes in the United States. Peripheral sensory neuropathy in the absence of perceived trauma is the primary factor leading to diabetic foot ulcerations. Approximately 45-60% of all diabetic ulcerations are purely neuropathic. Other forms of neuropathy may also play a role in foot ulcerations. Motor neuropathy resulting in anterior crural muscle atrophy or intrinsic muscle wasting can lead to foot deformities such as foot drop, equinus, and hammertoes. In people with diabetes, 22.8% have foot problems – such as amputations and numbness – compared with 10% of nondiabetics. Over the age of 40 years old, 30% of people with diabetes have loss of sensation in their feet.

CLINICAL RECOMMENDATION STATEMENTS:
Recognizing important risk factors and making a logical, treatment-oriented assessment of the diabetic foot requires a consistent and thorough diagnostic approach using a common language. Without such a method, the practitioner is more likely to overlook vital information and to pay inordinate attention to less critical points in the evaluation. A useful examination will involve identification of key risk factors and assignment into appropriate risk category. Only then can an effective treatment plan be designed and implemented. (ACFAS/ACFAOM Clinical Practice Guidelines).

MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION

RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of
effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)
CHRONIC KIDNEY DISEASE (CKD) MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN THE CHRONIC KIDNEY DISEASE (CKD) MEASURES GROUP:
#47 Care Plan
#110 Preventive Care and Screening: Influenza Immunization
#121 Adult Kidney Disease: Laboratory Testing (Lipid Profile)
#122 Adult Kidney Disease: Blood Pressure Management
#130 Documentation of Current Medications in the Medical Record
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

INSTRUCTIONS FOR REPORTING:
• It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8487: I intend to report the Chronic Kidney Disease (CKD) Measures Group

• Report the patient sample method:

20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

• Patient sample criteria for the CKD Measures Group are patients aged 18 years and older with a specific diagnosis of CKD accompanied by a specific patient encounter:

One of the following diagnosis codes indicating stage 3, 4 or 5 chronic kidney disease:
ICD-10-CM: N18.3, N18.4, N18.5

Accompanied by:

One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99346, 99347, 99348, 99349, 99350

• To satisfactorily report the CKD Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

• The CKD Measures Group diagnosis codes specifically exclude Renal Replacement Therapy (RRT) patients. None of the encounter codes are for hemodialysis, peritoneal dialysis or RRT. Therefore, if the patient was on RRT they would not be considered denominator eligible.

• Measure #47 need only be reported on patients 65 years and older.

• Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2015-2016 influenza season OR between October and December for the 2016-2017 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate.
• Report measure #122 once during the month the patient is included in the patient sample population. For this measure, subsequent visits do not need to be reported.

• Instructions for qualifying numerator option reporting for each of the measures within the Chronic Kidney Disease (CKD) Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  **Composite QDC G8495:** All quality actions for the applicable measures in the CKD Measures Group have been performed for this patient

• Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

• **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #47 (NQF 0326): Care Plan -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

NUMERATOR:
Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

Numerator Instructions: If patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, report 1124F.

Definition:
Documentation that Patient did not Wish or was not able to Name a Surrogate Decision Maker or Provide an Advance Care Plan – May also include, as appropriate, the following:
- That the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship.

NUMERATOR NOTE: The CPT Category II codes used for this measure indicate: Advance Care Planning was discussed and documented. The act of using the Category II codes on a claim (or equivalent medical record documentation) indicates the provider confirmed that the Advance Care Plan was in the medical record (that is, at the point in time the code was assigned, the Advance Care Plan in the medical record was valid) or that advance care planning was discussed. The codes (or equivalent medical record documentation) are required annually to ensure that the provider either confirms annually that the plan in the medical record is still appropriate or starts a new discussion.

The provider does not need to review the Advance Care Plan annually with the patient to meet the numerator criteria; documentation of a previously developed advanced care plan that is still valid in the medical record meets numerator criteria.

Numerator Options:
Performance Met:
Advance Care Planning discussed and documented; advance care plan or surrogate decision maker documented in the medical record (1123F)

OR
Performance Met:
Advance Care Planning discussed and documented in the medical record; patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan (1124F)

OR
Performance Not Met:
Advance care planning not documented, reason not otherwise specified (1123F with 8P)
**Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization -- National Quality Strategy Domain: Community/Population Health**

**DESCRIPTION:**
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

**NUMERATOR:**
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

**Numerator Instructions:**
- If reporting this measure between January 1, 2016 and March 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2015 or January, February, and March of 2016 for the flu season ending March 31, 2016.
- If reporting this measure between October 1, 2016 and December 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2016 for the flu season ending March 31, 2017.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2015-2016 flu season OR 2016-2017 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, G8482 should be reported.

**Definition:**
Previous Receipt - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

**Numerator Note:** The numerator for this measure can be met by reporting either administration of an influenza vaccination or that the patient reported previous receipt of the current season’s influenza immunization. If the performance of the numerator is not met, a clinician can report a valid performance exclusion for having not administered an influenza vaccination. For clinicians reporting a performance exclusion for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

**Numerator Options:**

*Performance Met:*
Influenza immunization administered or previously received (G8482)

*Other Performance Exclusion:*
Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) (G8483)

*Performance Not Met:*
Influenza immunization was not administered, reason not given (G8484)
Measure #121 (NQF 1668): Adult Kidney Disease: Laboratory Testing (Lipid Profile) -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of chronic kidney disease (CKD) (stage 3, 4 or 5, not receiving Renal Replacement Therapy [RRT]) who had a fasting lipid profile performed at least once within a 12-month period

NUMERATOR:
Patients who had a fasting lipid profile performed at least once within a 12-month period

Definition:
RRT (Renal Replacement Therapy) - For the purposes of this measure, RRT includes hemodialysis, peritoneal dialysis, and kidney transplantation.

Numerator Options:
Performance Met: Fasting lipid profile performed (Triglycerides, LDL-C, HDL-C, and Total Cholesterol) (G8725)

OR

Other Performance Exclusion: Clinician has documented reason for not performing fasting lipid profile (e.g., patient declined, other patient reasons) (G8726)

OR

Performance Not Met: Fasting lipid profile not performed, reason not given (G8728)
**Measure #122: Adult Kidney Disease: Blood Pressure Management – National Quality Strategy**  
**Domain: Effective Clinical Care**

**DESCRIPTION:**  
Percentage of patient visits for those patients aged 18 years and older with a diagnosis of chronic kidney disease (CKD) (stage 3, 4 or 5, not receiving Renal Replacement Therapy [RRT]) with a blood pressure < 140/90 mmHg OR ≥ 140/90 mmHg with a documented plan of care

**NUMERATOR:**  
Patient visits with blood pressure < 140/90 mmHg OR ≥ 140/90 mmHg with a documented plan of care

**Numerator Instructions:** If multiple blood pressure measurements are taken at a single visit, use the most recent measurement taken at that visit.

**Definitions:**  
**Plan of Care** - A documented plan of care should include one or more of the following: recheck blood pressure within 90 days; initiate or alter pharmacologic therapy for blood pressure control; initiate or alter non-pharmacologic therapy (lifestyle changes) for blood pressure control; documented review of patient’s home blood pressure log which indicates that patient’s blood pressure is or is not well controlled.

**RRT (Renal Replacement Therapy)** - For the purposes of this measure, RRT includes hemodialysis, peritoneal dialysis, and kidney transplantation.

**Numerator Options:**

**Performance Met:** Most recent blood pressure has a systolic measurement of < 140 mmHg and a diastolic measurement of < 90 mmHg (G8476)

**OR**

**Performance Met:** Most recent blood pressure has a systolic measurement of ≥ 140 mmHg and/or a diastolic measurement of ≥ 90 mmHg (G8477)

**AND**

Elevated blood pressure plan of care documented (0513F)

**OR**

**Performance Not Met:** Blood pressure measurement not performed or documented, reason not given (G8478)

**OR**

**Performance Not Met:** No documentation of elevated blood pressure plan of care, reason not otherwise specified (0513F with 8P)

**AND**

Most recent blood pressure has a systolic measurement of ≥140 mmHg and/or a diastolic measurement of ≥ 90 mmHg (G8477)
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record -- National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met: Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

OR

Other Performance Exclusion: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR

Performance Not Met: Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months **AND** who received cessation counseling intervention if identified as a tobacco user

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months **AND** who received tobacco cessation intervention if identified as a tobacco user

Definitions:
- **Tobacco Use** – Includes use of any type of tobacco.
- **Tobacco Cessation Intervention** – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

**NUMERATOR NOTE:** In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
- **Performance Met:** Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)
- **OR**
  - **Performance Met:** Current tobacco non-user (1036F)
  - **OR**
    - **Medical Performance Exclusion:** Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)
  - **OR**
    - **Performance Not Met:** Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
CHRONIC KIDNEY DISEASE (CKD) MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #47 – CARE PLAN
RATIONALE:
It is essential that the patient’s wishes regarding medical treatment be established as much as possible prior to incapacity. The Work Group has determined that the measure should remain as specified with no required timeframe based on a review of the literature. Studies have shown that people do change their preferences often with regard to advanced care planning, but it primarily occurs after a major medical event or other health status change. In the stable patient, it would be very difficult to define the correct interval. It was felt by the Work Group that the error rate in simply not having addressed the issue at all is so much more substantial (Teno, 1997) than the risk that an established plan has become outdated that we should not define a specific timeframe at this time. As this measure is tested and reviewed, we will continue to evaluate if and when a specific timeframe should be included.

CLINICAL RECOMMENDATION STATEMENTS:
Advance directives are designed to respect patient’s autonomy and determine his/her wishes about future life-sustaining medical treatment if unable to indicate wishes. Key interventions and treatment decisions to include in advance directives are: resuscitation procedures, mechanical respiration, chemotherapy, radiation therapy, dialysis, simple diagnostic tests, pain control, blood products, transfusions, and intentional deep sedation.

Oral statements
- Conversations with relatives, friends, and clinicians are most common form; should be thoroughly documented in medical record for later reference.
- Properly verified oral statements carry same ethical and legal weight as those recorded in writing.

Instructional advance directives (DNR orders, living wills)
- Written instructions regarding the initiation, continuation, withholding, or withdrawal of particular forms of life-sustaining medical treatment.
- May be revoked or altered at any time by the patient.
- Clinicians who comply with such directives are provided legal immunity for such actions.

Durable power of attorney for health care or health care proxy
- A written document that enables a capable person to appoint someone else to make future medical treatment choices for him or her in the event of decisional incapacity. (AGS)

The National Hospice and Palliative Care Organization provides the Caring Connection web site, which provides resources and information on end-of-life care, including a national repository of state-by-state advance directives.

MEASURE #110 – PREVENTIVE CARE AND SCREENING: INFLUENZA IMMUNIZATION
RATIONALE:
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged >=6 months who do not have contraindications. Vaccination optimally should occur before onset of influenza activity in the community. Health care providers should offer vaccination soon after vaccine becomes available (by October, if possible). Vaccination should be offered as long as influenza viruses are circulating. (CDC/ACIP, 2014)
**MEASURE #121 – ADULT KIDNEY DISEASE: LABORATORY TESTING (LIPID PROFILE)**

**RATIONALE:**
The principal reason to evaluate dyslipidemias in patients with CKD is to detect abnormalities that may be treated to reduce the incidence of ACVD. A number of observational studies have reported that various dyslipidemias are associated with decreased kidney function in the general population and in patients with CKD. (KDOQI)

Many factors influence the prevalence of dyslipidemias in CKD. Changes in proteinuria, GFR, and treatment of CKD may alter lipoprotein levels. Therefore, it is prudent to evaluate dyslipidemias more often than is recommended in the general population. (KDOQI)

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Only selected portions of the clinical guidelines are quoted here; for more details, please refer to the full guideline.

All adults and adolescents with CKD should be evaluated for dyslipidemias. (Grade B) (KDOQI, 2003)

For adults and adolescents with CKD, the assessment of dyslipidemias should include a complete fasting lipid profile with total cholesterol, LDL, HDL, and triglycerides. (Grade B) (KDOQI, 2003)

If a patient has GFR ≤ 30 ml/min/1.73m², then s/he should be monitored for dyslipidemias; measurements should include triglycerides, LDL, HDL, and total cholesterol. (B) (RPA, 2002)

**MEASURE #122 – ADULT KIDNEY DISEASE: BLOOD PRESSURE MANAGEMENT**

**RATIONALE:**
Accurate measurement in CKD is especially important, because hypertension is more common in CKD, and because JNC 8 identifies CKD as a "compelling indication" for more aggressive antihypertensive therapy because of the higher risk of CVD in CKD than in the general population.

**CLINICAL RECOMMENDATION STATEMENTS:**
Only selected portions of the clinical guidelines are quoted here; for more details, please refer to the full guideline.

Blood pressure should be measured at each health encounter (Grade A). (KDOQI, 2004)

If a patient has GFR ≤ 30 ml/min/1.73m², then his/her blood pressure should be checked with every clinic visit (Grade A). (RPA, 2002)

In the population aged ≥18 years with chronic kidney disease (CKD), initiate pharmacologic treatment to lower BP at SBP ≥140 mm Hg or DBP ≥90 mm Hg and treat to goal SBP <140 mm Hg and goal DBP <90 mm Hg. (Expert Opinion – Grade E). (JNC8, 2014)

Patients with CKD should be considered in the “highest-risk” group for CVD for implementing recommendations for pharmacological treatment, irrespective of cause of CKD (Grade A). (KDOQI, 2004)

All antihypertensive agents can be used to lower blood pressure in CKD. Multidrug regimens will be necessary in most patients with CKD to achieve therapeutic goals. Patients with specific causes of kidney disease and CVD will benefit from specific classes of agents. (KDOQI, 2004)

All classes of antihypertensive agents are effective in lowering blood pressure in CKD. Antihypertensive agents should be prescribed as follows, when possible: Preferred agents for CKD should be used first (Grade A); Diuretics should be included in the antihypertensive regimen in most patients (Grade A); Choose additional agents based on cardiovascular disease-specific indications to achieve therapeutic and preventive targets and to avoid side-effects and interactions (Grade B). (KDOQI, 2004)
Elevated blood pressure must be confirmed on repeated visits before characterizing an individual as having hypertension. Blood pressure can be determined by resting blood pressure measurement in the health-care provider’s office (casual blood pressure [CBP]), self-measured blood pressure (SMBP), or ambulatory blood pressure monitoring (ABPM). Blood pressure should be measured according to the recommendations for indirect measurement of arterial blood pressure of the American Heart Association and Seventh Report of the Joint National Committee on the Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC 7) (Grade A); Patients should be taught to measure and record their blood pressure, whenever possible (Grade C). (KDOQI, 2004)

High blood pressure is both a cause and a complication of chronic kidney disease. As a complication, high blood pressure may develop early during the course of chronic kidney disease and is associated with adverse outcomes—in particular, faster loss of kidney function and development of cardiovascular disease.

- Blood pressure should be closely monitored in all patients with chronic kidney disease.
- Treatment of high blood pressure in chronic kidney disease should include specification of target blood pressure levels, nonpharmacologic therapy, and specific antihypertensive agents for the prevention of progression of kidney disease (Guideline 13) and development of cardiovascular disease (Guideline 15). (KDOQI, 2002)
- Interventions to slow the progression of kidney disease should be considered in all patients with chronic kidney disease.
- Interventions that have been proven to be effective include:
  1) Strict glucose control in diabetes;
  2) Strict blood pressure control;
  3) Angiotensin-converting enzyme inhibition or angiotensin-2 receptor blockade. (KDOQI, 2002)

MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD

RATIONALE:
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), “different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient’s medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing.”

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative
data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**
The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency,
route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future.” (Joint Commission, 2015, retrieved at: Joint Commission’s 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, The Physician’s Role in Medication Reconciliation, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION

RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of
effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)
PREVENTIVE CARE MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN THE PREVENTIVE CARE MEASURES GROUP:

#39 Screening for Osteoporosis for Women Aged 65 - 85 Years of Age
#48 Urinary Incontinence: Assessment of Presence or Absence of Urinary Incontinence in Women Aged 65 Years and Older
#110 Preventive Care and Screening: Influenza Immunization
#111 Pneumonia Vaccination Status for Older Adults
#112 Breast Cancer Screening
#113 Colorectal Cancer Screening
#128 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan
#134 Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#431 Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

  G8486: I intend to report the Preventive Care Measures Group

- Report the patient sample method:

  **20 Patient Sample Method via registries:** 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Preventive Care Measures Group are for patients aged 50 years and older with a specific patient encounter:

  **One of the following patient encounter codes:** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

- To satisfactorily report the Preventive Care Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Applicable measures contain patient demographic criteria specific to the measure. (See the Preventive Care Measures Group Demographic Criteria Table). For example, Screening for Osteoporosis is applicable to women aged 65 -85 years within the sample population, while the Influenza Vaccination measure within this group is applicable to all patients aged 50 years and older. Eligible professionals may find it more efficient to report all measures in the group for each patient within their sample. Reporting measure(s) from the group that are inapplicable to an individual patient will not affect the eligible provider’s reporting or performance rate.
### Table 4 - Preventive Care Measures Group Demographic Criteria

<table>
<thead>
<tr>
<th>Age</th>
<th>Measures for Male Patients</th>
<th>Measures for Female Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 50 years</td>
<td>Patient does not qualify for measures group analysis</td>
<td>Patient does not qualify for measures group analysis</td>
</tr>
<tr>
<td>50-64 years</td>
<td>110, 113, 128, 134, 226, 431</td>
<td>110, 112, 113, 128, 134, 226, 431</td>
</tr>
<tr>
<td>75-85 years</td>
<td>110, 111, 128, 134, 226, 431</td>
<td>39, 48, 110, 111, 112, 128, 134, 226, 431</td>
</tr>
<tr>
<td>≥ 86 years</td>
<td>110, 111, 128, 134, 226, 431</td>
<td>48, 110, 111, 128, 134, 226, 431</td>
</tr>
</tbody>
</table>

- Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2015-2016 influenza season OR between October and December for the 2016-2017 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate.

- Measure #111 assesses whether patients 65 years of age or older have received one or more pneumococcal vaccinations.

- Measure #112 27-month look back period applies to women ages 52-74 (the numerator looks for a mammogram any time on or between October 1, 27 months prior to the measurement period, and December 31 of the measurement period in order to capture women who have had a mammogram every 24 months per clinical guidelines, with a 3-month grace period). Therefore, women ages 50-52 are included in the measure if they had a visit and a mammogram since age 50, but the 27-month look back period only applies to patients age 52-74. For patients that are 51 years of age during the measurement period look back only to age 50.

- Measure #128 does not need to be reported (is not applicable) if the patient is considered not eligible for BMI calculation or follow-up plan – A patient is not eligible if one or more of the following reasons are documented:
  - Patient is receiving palliative care
  - Patient is pregnant
  - Patient refuses BMI measurement (refuses height and/or weight)
  - Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
  - Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

- Measure #134 need only be reported on patients without an active diagnosis of Depression or a diagnosed Bipolar Disorder.

- Instructions for qualifying numerator option reporting for each of the measures within the Preventive Care Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.
Composite QDC G8496: All quality actions for the applicable measures in the Preventive Care Measures Group have been performed for this patient

- Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- NOTE: The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #39 (NQF 0046): Screening for Osteoporosis for Women Aged 65-85 Years of Age --
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of female patients aged 65-85 years of age who ever had a central dual-energy X-ray absorptiometry (DXA) to check for osteoporosis.

NUMERATOR:
The number of women who have documentation in their medical record of having received a DXA test of the hip or spine.

Numerator Options:
Performance Met: Patient with documented results of a central Dual-energy X-Ray Absorptiometry (DXA) ever being performed (G8399)

OR

Other Performance Exclusion: Clinician documented that patient was not an eligible candidate for screening (G8401)

OR

Performance Not Met: Patient with central Dual-energy X-Ray Absorptiometry (DXA) results not documented, reason not given (G8400)
Measure #48: Urinary Incontinence: Assessment of Presence or Absence of Urinary Incontinence in Women Aged 65 Years and Older -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of female patients aged 65 years and older who were assessed for the presence or absence of urinary incontinence within 12 months

NUMERATOR:
Patients who were assessed for the presence or absence of urinary incontinence within 12 months

Definition:
Urinary Incontinence – Any involuntary leakage of urine.

Numerator Options:
Performance Met: Presence or absence of urinary incontinence assessed (1090F)

OR
Medical Performance Exclusion: Documentation of medical reason(s) for not assessing for the presence or absence of urinary incontinence (1090F with 1P)

OR
Performance Not Met: Presence or absence of urinary incontinence not assessed, reason not otherwise specified (1090F with 8P)
Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

NUMERATOR:
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

Numerator Instructions:
- If reporting this measure between January 1, 2016 and March 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2015 or January, February, and March of 2016 for the flu season ending March 31, 2016.
- If reporting this measure between October 1, 2016 and December 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2016 for the flu season ending March 31, 2017.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2015-2016 flu season OR 2016-2017 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, G8482 should be reported.

Definition:
Previous Receipt - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

NUMERATOR NOTE: The numerator for this measure can be met by reporting either administration of an influenza vaccination or that the patient reported previous receipt of the current season’s influenza immunization. If the performance of the numerator is not met, a clinician can report a valid performance exclusion for having not administered an influenza vaccination. For clinicians reporting a performance exclusion for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

Numerator Options:
Performance Met: Influenza immunization administered or previously received (G8482)

OR

Other Performance Exclusion: Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) (G8483)

OR

Performance Not Met: Influenza immunization was not administered, reason not given (G8484)
Measure #111 (NQF 0043): Pneumonia Vaccination Status for Older Adults -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients 65 years of age and older who have ever received a pneumococcal vaccine

NUMERATOR:
Patients who have ever received a pneumococcal vaccination

NUMERATOR NOTE: While the measure provides credit for adults 65 years of age and older who have ever received either the PCV13 or PPSV23 vaccine (or both), according to ACIP recommendations, patients should receive both vaccines. The order and timing of the vaccinations depends on certain patient characteristics, and are described in more detail in the ACIP recommendations.

Numerator Options:
Performance Met: Pneumococcal vaccine administered or previously received (4040F)

OR
Performance Not Met: Pneumococcal vaccine was not administered or previously received, reason not otherwise specified (4040F with 8P)
<table>
<thead>
<tr>
<th><strong>Measure #112 (NQF 2372): Breast Cancer Screening -- National Quality Strategy Domain: Effective Clinical Care</strong></th>
</tr>
</thead>
</table>

**DESCRIPTION:**
Percentage of women 50 through 74 years of age who had a mammogram to screen for breast cancer within 27 months

**NUMERATOR:**
Patients with one or more mammograms any time on or between October 1, 27 months prior to December 31 of the measurement period, not to precede the patient’s 50th birthday

**Numerator Options:**
- **Performance Met:** Screening mammography results documented and reviewed (3014F)
- **Medical Performance Exclusion:** Documentation of medical reason(s) for not performing a mammogram (ie, women who had a bilateral mastectomy or two unilateral mastectomies) (3014F with 1P)
- **Performance Not Met:** Screening mammography results were not documented and reviewed, reason not otherwise specified (3014F with 8P)
Measure #113 (NQF 0034): Colorectal Cancer Screening -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients 50 - 75 years of age who had appropriate screening for colorectal cancer

NUMERATOR:
Patients with one or more screenings for colorectal cancer. Appropriate screenings are defined by any one of the following criteria below:

- Fecal occult blood test (FOBT) during the measurement period
- Flexible sigmoidoscopy during the measurement period or the four years prior to the measurement period
- Colonoscopy during the measurement period or the nine years prior to the measurement period

Numerator Options:

Performance Met: Colorectal cancer screening results documented and reviewed (3017F)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for not performing a colorectal cancer screening (ie, diagnosis of colorectal cancer or total colectomy) (3017F with 1P)

OR

Performance Not Met: Colorectal cancer screening results were not documented and reviewed, reason not otherwise specified (3017F with 8P)
Measure #128 (NQF 0421): Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older with a BMI documented during the current encounter or during the previous six months AND with a BMI outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter

Normal Parameters:  
Age 65 years and older BMI ≥ 23 and < 30 kg/m²  
Age 18 – 64 years BMI ≥ 18.5 and < 25 kg/m²

NUMERATOR:
Patients with a documented BMI during the encounter or during the previous six months, AND when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter

Numerator Instructions:
- Height and Weight – An eligible professional or their staff is required to measure both height and weight. Both height and weight must be measured within six months of the current encounter and may be obtained from separate encounters. Self-reported values cannot be used.
- Follow-Up Plan – If the most recent documented BMI is outside of normal parameters, then a follow-up plan is documented during the encounter or during the previous six months of the current encounter. The documented follow-up plan must be based on the most recent documented BMI outside of normal parameters, example: “Patient referred to nutrition counseling for BMI above normal parameters.” (See Definitions for examples of a follow-up plan treatments)
- Performance Met for G8417 & G8418
- If the provider documents a BMI and a follow-up plan at the current visit OR
- If the patient has a documented BMI within the previous six months of the current encounter, the provider documents a follow-up plan at the current visit OR
- If the patient has a documented BMI within the previous six months of the current encounter AND the patient has a documented follow-up plan for a BMI outside normal parameters within the previous six months of the current visit

Definitions:
BMI – Body mass index (BMI), is a number calculated using the Quetelet index: weight divided by height squared (W/H²) and is commonly used to classify weight categories. BMI can be calculated using:

Metric Units: BMI = Weight (kg) / (Height (m) x Height (m))

OR

English Units: BMI = Weight (lbs) / (Height (in) x Height (in)) x 703

Follow-Up Plan – Proposed outline of treatment to be conducted as a result of a BMI out of normal parameters. A follow-up plan may include but is not limited to:
- Documentation of education
- Referral (e.g., a registered dietician/nutritionist, occupational therapist, physical therapist, primary care provider, exercise physiologist, mental health professional, or surgeon)
- Pharmacological interventions
- Dietary supplements
- Exercise counseling
Nutrition counseling

Not Eligible for BMI Calculation or Follow-Up Plan – A patient is not eligible if one or more of the following reasons are documented:

- Patient is receiving palliative care
- Patient is pregnant
- Patient refuses BMI measurement (refuses height and/or weight)
- Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
- Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

Numerator Options:

Performance Met:
- BMI is documented within normal parameters and no follow-up plan is required (G8420)

OR

Performance Met:
- BMI is documented above normal parameters and a follow-up plan is documented (G8417)

OR

Performance Met:
- BMI is documented below normal parameters and a follow-up plan is documented (G8418)

OR

Performance Not Met:
- BMI not documented and no reason is given (G8421)

OR

Performance Not Met:
- BMI documented outside normal parameters, no follow-up plan documented, no reason given (G8419)
Measure #134 (NQF 0418): Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 12 years and older screened for clinical depression on the date of the encounter using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen.

NUMERATOR:
Patients screened for clinical depression on the date of the encounter using an age appropriate standardized tool AND, if positive, a follow-up plan is documented on the date of the positive screen.

Numerator Instructions: The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record. The depression screening must be reviewed and addressed in the office of the provider filing the code on the date of the encounter.

Definitions:
Screening – Completion of a clinical or diagnostic tool used to identify people at risk of developing or having a certain disease or condition, even in the absence of symptoms.

Standardized Depression Screening Tool – A normalized and validated depression screening tool developed for the patient population in which it is being utilized. The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record.

Examples of depression screening tools include but are not limited to:

- **Adolescent Screening Tools (12-17 years)**
  - Patient Health Questionnaire for Adolescents (PHQ-A), Beck Depression Inventory-Primary Care Version (BDI-PC), Mood Feeling Questionnaire (MFQ), Center for Epidemiologic Studies Depression Scale (CES-D), and PRIME MD-PHQ2

- **Adult Screening Tools (18 years and older)**
  - Patient Health Questionnaire (PHQ-9), Beck Depression Inventory (BDI or BDI-II), Center for Epidemiologic Studies Depression Scale (CES-D), Depression Scale (DEPS), Duke Anxiety-Depression Scale (DADS), Geriatric Depression Scale (GDS), Cornell Scale Screening, and PRIME MD-PHQ2

Follow-Up Plan – Documented follow-up for a positive depression screening must include one or more of the following:

- Additional evaluation for depression
- Suicide Risk Assessment
- Referral to a practitioner who is qualified to diagnose and treat depression
- Pharmacological interventions
- Other interventions or follow-up for the diagnosis or treatment of depression

Not Eligible – A patient is not eligible if one or more of the following conditions are documented:

- Patient refuses to participate
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status
- Situations where the patient’s functional capacity or motivation to improve may impact the accuracy of results of standardized depression assessment tools. For example: certain court appointed cases or cases of delirium
- Patient has an active diagnosis of Depression
- Patient has a diagnosed Bipolar Disorder

Numerator Note: The follow-up plan must be related to a positive depression screening, example: “Patient referred for psychiatric evaluation due to positive depression screening.”
Numerator Options:

Performance Met:
- Screening for clinical depression is documented as being positive AND a follow-up plan is documented (G8431)

OR

Performance Met:
- Screening for clinical depression is documented as negative, a follow-up plan is not required (G8510)

OR

Other Performance Exclusion:
- Screening for clinical depression not documented, documentation stating the patient is not eligible (G8433)

OR

Other Performance Exclusion:
- Screening for clinical depression documented as positive, a follow-up plan not documented, documentation stating the patient is not eligible (G8940)

OR

Performance Not Met:
- Clinical depression screening not documented, reason not given (G8432)

OR

Performance Not Met:
- Screening for clinical depression documented as positive, follow-up plan not documented, reason not given (G8511)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user.

Definitions:
- Tobacco Use — Includes use of any type of tobacco.
- Tobacco Cessation Intervention — Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
- Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)
- OR
- Performance Met: Current tobacco non-user (1036F)
- OR
- Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (e.g., limited life expectancy, other medical reasons) (4004F with 1P)
- OR
- Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
Measure #431 (NQF 2152): Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling -- National Quality Strategy Domain: Community/ Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened at least once within the last 24 months for unhealthy alcohol use using a systematic screening method AND who received brief counseling if identified as an unhealthy alcohol user

NUMERATOR:
Patients who were screened at least once within the last 24 months for unhealthy alcohol use using a systematic screening method AND who received brief counseling if identified as an unhealthy alcohol user

Definitions:
Systematic screening method - For purposes of this measure, one of the following systematic methods to assess unhealthy alcohol use must be utilized. Systematic screening methods and thresholds for defining unhealthy alcohol use include:
- AUDIT Screening Instrument (score ≥ 8)
- AUDIT-C Screening Instrument (score ≥ 4 for men; score ≥ 3 for women)
- Single Question Screening - How many times in the past year have you had 5 (for men) or 4 (for women and all adults older than 65 years) or more drinks in a day? (response ≥ 2)

Brief counseling - Brief counseling for unhealthy alcohol use refers to one or more counseling sessions, a minimum of 5-15 minutes, which may include: feedback on alcohol use and harms; identification of high risk situations for drinking and coping strategies; increased motivation and the development of a personal plan to reduce drinking.

NUMERATOR NOTE: In the event that a patient is screened for unhealthy alcohol use and identified as a user but did not receive alcohol cessation counseling report G9624.

Numerator Options:
Performance Met:
Patient identified as an unhealthy alcohol user when screened for unhealthy alcohol use using a systematic screening method and received brief counseling (G9621)

OR
Performance Met:
Patient not identified as an unhealthy alcohol user when screened for unhealthy alcohol use using a systematic screening method (G9622)

OR
Medical Performance Exclusion:
Documentation of medical reason(s) for not screening for unhealthy alcohol use (e.g., limited life expectancy, other medical reasons) (G9623)

OR
Performance Not Met:
Patient not screened for unhealthy alcohol screening using a systematic screening method OR patient did not receive brief counseling, reason not given (G9624)
PREVENTIVE CARE MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #39 - SCREENING OR THERAPY FOR OSTEOPOROSIS FOR WOMEN AGED 65 YEARS AND OLDER
RATIONALE:
This measure assesses the number of women 65-85 who have ever received a dual-energy x-ray absorptiometry (DXA) test to check for osteoporosis. There is convincing evidence that bone mineral density tests predict short-term risk for osteoporotic fractures. There is also evidence osteoporosis treatment reduces the incidence of fracture in women who are identified to be at risk of an osteoporotic fracture. Fractures, especially in the older population, can cause significant health issues, decline in function, and, in some cases lead to mortality.

CLINICAL RECOMMENDATION STATEMENTS:
The USPSTF recommends screening for osteoporosis in women age 65 years and older and in younger women whose fracture risk is equal to or greater than that of a 65 year old white women who has no additional risk factors. (B Recommendation) (USPSTF)

“Based on the U.S. FRAX tool, a 65-year-old white woman with no other risk factors has a 9.3% 10-year risk for any osteoporotic fracture. White women between the ages of 50 and 64 years with equivalent or greater 10-year fracture risks based on specific risk factors include but are not limited to the following persons: 1) a 50-year-old current smoker with a BMI less than 21 kg/m2, daily alcohol use, and parental fracture history; 2) a 55-year-old woman with a parental fracture history; 3) a 60-year-old woman with a BMI less than 21 kg/m2 and daily alcohol use; and 4) a 60-year-old current smoker with daily alcohol use. The FRAX tool also predicts 10-year fracture risks for black, Asian, and Hispanic women in the United States. In general, estimated fracture risks in nonwhite women are lower than those for white women of the same age.” (USPSTF)

Current diagnostic and treatment criteria for osteoporosis rely on DXA measurements only.

The USPSTF did not define a specific upper age limit for screening in women, however they noted that clinicians should take into account the patient's remaining lifespan when deciding whether to screen patients with significant illness; the benefit of treatment emerged 18 to 24 months after initiation of treatment.

MEASURE #48 - URINARY INCONTINENCE: ASSESSMENT OF PRESENCE OR ABSENCE OF URINARY INCONTINENCE IN WOMEN AGED 65 YEARS AND OLDER
RATIONALE:
Female patients may not volunteer information regarding incontinence so they should be asked by their physician.

CLINICAL RECOMMENDATION STATEMENTS:
Strategies to increase recognition and reporting of UI are required and especially the perception that it is an inevitable consequence of aging for which little or nothing can be done. (ICI)

Patients with urinary incontinence should undergo a basic evaluation that includes a history, physical examination, measurement of post-void residual volume, and urinalysis. (ACOG) (Level C)

Health care providers should be able to initiate evaluation and treatment of UI basing their judgment on the results of history, physical examination, post-voiding residual and urinalysis. (ICI) (Grade B for women)

MEASURE #110 - PREVENTIVE CARE AND SCREENING: INFLUENZA IMMUNIZATION
RATIONALE:
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.
CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged >=6 months who do not have contraindications. Vaccination optimally should occur before onset of influenza activity in the community. Health care providers should offer vaccination soon after vaccine becomes available (by October, if possible). Vaccination should be offered as long as influenza viruses are circulating. (CDC/ACIP, 2014)

MEASURE #111 - PNEUMONIA VACCINATION STATUS FOR OLDER ADULTS
RATIONALE:
Pneumonia is a common cause of illness and death in the elderly and persons with certain underlying conditions such as heart failure, diabetes, cystic fibrosis, asthma, sickle cell anemia, or chronic obstructive pulmonary disease (NHLBI, 2011). In 1998, an estimated 3,400 adults aged > 65 years died as a result of invasive pneumococcal disease (IPD) (CDC, 2003).

Among the 91.5 million US adults aged > 50 years, 29,500 cases of IPD, 502,600 cases of nonbacteremic pneumococcal pneumonia and 25,400 pneumococcal-related deaths are estimated to occur yearly; annual direct and indirect costs are estimated to total $3.7 billion and $1.8 billion, respectively. Pneumococcal disease remains a substantial burden among older US adults, despite increased coverage with 23-valent pneumococcal polysaccharide vaccine (PPV23) and indirect benefits afforded by PCV7 vaccination of young children (Weycker, et al., 2011).

Vaccination has been found to be effective against bacteremic cases (OR: 0.34; 95% CI: 0.27–0.66) as well as nonbacteremic cases (OR: 0.58; 95% CI: 0.39–0.86). Vaccine effectiveness was highest against bacteremic infections caused by vaccine types (OR: 0.24; 95% CI: 0.09–0.66) (Vila-Corcoles, et al., 2009).

MEASURE #112 - BREAST CANCER SCREENING
RATIONALE:
Breast cancer is one of the most common types of cancers, accounting for a quarter of all new cancer diagnoses for women in the U.S. (BreastCancer.Org, 2011). It ranks as the second leading cause of cancer-related mortality in women, accounting for nearly 40,000 estimated deaths in 2013 (American Cancer Society, 2011).

According to the National Cancer Institute’s Surveillance Epidemiology and End Results program, the chance of a woman being diagnosed with breast cancer in a given year increases with age. By age 30, it is one in 2,212. By age 40, the chances increase to one in 235, by age 50, it becomes one in 54, and, by age 60, it is one in 25. From 2004 to 2008, the median age at the time of breast cancer diagnosis was 61 years among adult women (Tangka et al, 2010).

In the U.S., costs associated with a diagnosis of breast cancer range from $451 to $2,520, factoring in continued testing, multiple office visits and varying procedures. The total costs related to breast cancer add up to nearly $7 billion per year in the U.S., including $2 billion spent on late-stage treatment (Lavigne et al, 2008; Boykoff et al, 2009).
CLINICAL RECOMMENDATION STATEMENTS:
The U.S. Preventive Services Task Force (USPSTF) recommends biennial screening mammography for women aged 50-74 years (B recommendation). The decision to start regular, biennial screening mammography before the age of 50 years should be an individual one and take patient context into account, including the patient’s values regarding specific benefits and harms (C recommendation). (USPSTF, 2009) The Task Force concludes the evidence is insufficient to assess the additional benefits and harms of screening mammography in women 75 years and older (I statement).

U.S. Preventive Services Task Force (2009):

Grade: B recommendation. The USPSTF recommends biennial screening mammography for women aged 50 to 74 years.

Grade: C recommendation. The decision to start regular, biennial screening mammography before the age of 50 years should be an individual one and take patient context into account, including the patient’s values regarding specific benefits and harms.

Grade: I Statement. The USPSTF concludes that the current evidence is insufficient to assess the additional benefits and harms of screening mammography in women 75 years or older.

Grade: D recommendation. The USPSTF recommends against teaching breast self-examination (BSE).

Grade: I Statement. The USPSTF concludes that the current evidence is insufficient to assess the additional benefits and harms of clinical breast examination (CBE) beyond screening mammography in women 40 years or older.

Grade: I Statement. The USPSTF concludes that the current evidence is insufficient to assess the additional benefits and harms of either digital mammography or magnetic resonance imaging (MRI) instead of film mammography as screening modalities for breast cancer.

MEASURE #113 - COLORECTAL CANCER SCREENING
RATIONALE:
An estimated 142,570 men and women were diagnosed with colon cancer in 2010. In the same year, 51,370 were estimated to have died from the disease, making colorectal cancer the third leading cause of cancer death in the United States (American Cancer Society 2010).

Screening for colorectal cancer is extremely important as there are no signs or symptoms of the cancer in the early stages. If the disease is caught in its earliest stages, it has a five-year survival rate of 91%; however, the disease is often not caught this early. While screening is extremely effective in detecting colorectal cancer, it remains underutilized (American Cancer Society 2010).

Fecal occult blood tests, colonoscopy, and flexible sigmoidoscopy are shown to be effective screening methods (United States Preventive Services Task Force, 2008). Colorectal screening of individuals with no symptoms can identify polyps whose removal can prevent more than 90% of colorectal cancers (Rozen 2004).

Studies have shown that the cost-effectiveness of colorectal cancer screening is $40,000 per life year gained, which is similar to the cost-effectiveness of mammography for breast cancer screening (Hawk and Levin 2005).

CLINICAL RECOMMENDATION STATEMENTS:
The United States Preventive Services Task Force (2008):

[1]The USPSTF recommends screening for colorectal cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy in adults, beginning at age 50 years and continuing until age 75 years (A recommendation).
The USPSTF concludes that the evidence is insufficient to assess the benefits and harms of computed tomographic (CT) colonography and fecal DNA testing as screening modalities for colorectal cancer (I statement).


Tests that Detect Adenomatous Polyps and Cancer:

1) Colonoscopy (every 10 years)
2) Flexible sigmoidoscopy (every 5 years)
3) Double contrast barium enema (DCBE) (every 5 yrs)
4) Computed tomographic colonography (CTC) (every 5 years)

Tests that Primarily Detect Cancer:

1) Guaiac fecal occult blood test (gFOBT) with high sensitivity for cancer (annually)
2) Fecal immunochemical test (FIT) with high sensitivity for cancer (annually)
3) Stool DNA (sDNA) with high sensitivity for cancer (interval uncertain)

Modalities not approved:

1) Single digital rectal examination fecal occult blood test (FOBT) has a poor sensitivity for CRC and should not be performed as a primary screening method
2) Studies evaluating virtual colonoscopy and fecal DNA testing for CRC screening have yielded conflicting results and therefore cannot be recommended

MEASURE #128 - PREVENTIVE CARE AND SCREENING: BODY MASS INDEX (BMI) SCREENING AND FOLLOW-UP PLAN

RATIONALE:

Normal Parameters for Age 65 Years and Older
Winter et al. (2014) performed a meta-analysis looking at the relationship between BMI and all-cause mortality among adults 65 and older. They identified a higher risk of mortality among those with a BMI <23 kg/m2 and recommended monitoring weight status in this group to address any modifiable causes of weight loss promptly with due consideration of individual comorbidities. Dahl et al. (2013) reported that old persons (70-79) who were overweight had a lower mortality risk than old persons who were of normal weight, even after controlling for weight change and multimorbidity. The study also shows that persons who increased or decreased in BMI had a greater mortality risk than those who had a stable BMI, particularly those aged 70 to 79. Their results provide support to the belief that the World Health Organization guidelines for BMI are overly restrictive in old age.

BMI Above Upper Parameters
Obesity continues to be a costly public health concern in the United States. The Centers for Disease Control and Prevention (CDC, 2010) reported in 2009, no state met the Healthy People 2010 obesity target of 15 percent and the self-reported overall prevalence of obesity among adults had increased 1.1 percentage points in 2007 to 26.7 percent (2010). Ogden, Carroll, Kit and Flegal (2013) reported the prevalence of BMI-defined obesity in adults is high and continues to exceed 30% in most sex-age groups (34.9% overall). They also stated the overall prevalence of obesity did not differ between men and women in 2011–2012; however, among non-Hispanic black adults, 56.6% of women were obese compared with 37.1% of men. In addition to the continued high prevalence rate for adults in general, Flegal, Carroll & Kit (2012) report a significant increase for men and for non-Hispanic black and Mexican American women over the 12-year period from 1999 through 2010 (2012). Moyer (2012) reported: Obesity is associated with such health problems as an increased risk for coronary artery disease, type 2 diabetes, various types of cancer, gallstones and disability. These comorbid medical conditions are associated with higher use of health care services and costs among obese patients (p. 373).
Obesity is also associated with an increased risk of death, particularly in adults younger than age 65 years and has been shown to reduce life expectancy by 6 to 20 years depending on age and race (LeBlanc et al., 2011). Masters, et al. (2013) also showed mortality due to obesity varied by race and gender. They estimated adult deaths between 1986 and 2006 associated with overweight and obesity was 5.0% and 15.6% for Black and White men, and 26.8% and 21.7% for Black and White women, respectively. They also found a stronger association than previous research demonstrated between obesity and mortality risk at older ages.

Finkelstein, Trogdon, Cohen and Dietz (2009) found that in 2006, across all payers, per capita medical spending for the obese is $1,429 higher per year, (42 percent) than for someone of normal weight. Using 2008 dollars, this was estimated to be equivalent to $147 billion dollars in medical care costs related to obesity.

Padula, Allen and Nair (2014) examined data from a commercial claims and encounters database to estimate the cost for obesity and associated comorbidities among working-age adults who had a claim with a primary or secondary diagnosis of obesity in 2006-2007. The mean net expenditure for inpatient and outpatient claims was $1,907 per patient per visit. The increases in cost for comorbidities ranged from $527 for obesity with CHF to $15,733 for the combination of obesity, diabetes mellitus, hypertension and depression.

In addition to a high prevalence rate of obesity, less than 50% of obese adults in 2010 received advice to exercise or perform physical activity (Barnes & Schoenborn, 2012).

**BMI Below Normal Parameters**

In the National Center for Health Statistics (NCHS) Health E-Stat, Fryer and Ogden (2012) reported that poor nutrition or underlying health conditions can result in underweight. Results from the 2007-2010 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate an estimated 1.7% of U.S. adults are underweight with women more likely to be underweight than men (2012).

In a cohort study conducted by Borrell and Lalitha (2014), data from NHANES III (1988-1994) was linked to the National Death Index mortality file with follow-up to 2006, and showed that when compared to their normal weight counterparts (BMI 18.5-25 kg/m²), underweight (BMI <18.5 kg/m²) had significantly higher death rates (Hazard Ratio= 2.27; 95% confidence interval (CI) = 1.78, 2.90).

Ranhoff, Gjoen and Mowe (2005) recommended using BMI < 23 kg/m² for the elderly to identify positive results with malnutrition screens and poor nutritional status.

**CLINICAL RECOMMENDATION STATEMENTS:**

Although multiple clinical recommendations addressing obesity have been developed by professional organizations, societies and associations, two recommendations have been identified which exemplify the intent of the measure and address the numerator and denominator.

The US Preventive Health Services Task Force (USPSTF) recommends screening all adults (aged 18 years and older) for obesity. Clinicians should offer or refer patients with a BMI of 30 or higher to intensive, multicomponent behavioral interventions. This is a B recommendation (Moyer, 2012).

As cited in Wilkinson et al. (2013), Institute for Clinical Systems Improvement (ICSI) Preventive Services for Adults, Obesity Screening (Level II) Recommendation provides the following guidance:

- Record height, weight and calculate body mass index at least annually
- Clinicians should consider waist circumference measurement to estimate disease 25 to 34.9 kg/m², sex risk for patients who have BMI scores indicative of overweight or obesity class I. For adult patients with a BMI of specific waist circumference cutoffs should be used in conjunction with BMI to identify increased disease risk.
• A BMI greater or equal to 30 is defined as obese
• A BMI of 25-29 is defined as overweight
• Intensive intervention for obese individuals, based on BMI, is recommended by the U.S. Preventive Services to help control weight.

Similarly, the 2013 joint report/guideline from the American Heart Association, American College of Cardiology and The Obesity Society also recommend measuring height and weight and calculating BMI at annual visits or more frequently, using the current cutpoints for overweight (BMI>25.0-29.9 kg/m²) and obesity (BMI ≥30 kg/m²) to identify adults who may be at elevated risk of CVD and the current cutpoints for obesity to identify adults who may be at elevated risk of mortality from all causes. They also recommend counseling overweight and obese individuals on their increased risk for CVD, type 2 diabetes, all-cause mortality and need for lifestyle changes.

MEASURE #134 - PREVENTIVE CARE AND SCREENING: SCREENING FOR CLINICAL DEPRESSION AND FOLLOW-UP PLAN

RATIONALE:
The World Health Organization (WHO), as seen in Pratt & Brody (2008), found that major depression was the leading cause of disability worldwide. Depression causes suffering, decreases quality of life, and causes impairment in social and occupational functioning. It is associated with increased health care costs as well as with higher rates of many chronic medical conditions. Studies have shown that a higher number of depression symptoms are associated with poor health and impaired functioning, whether or not the criteria for a diagnosis of major depression are met. Persons 40-59 years of age had higher rates of depression than any other age group. Persons 12-17, 18-39 and 60 years of age and older had similar rates of depression. Depression was more common in females than in males. Non-Hispanic black persons had higher rates of depression than non-Hispanic white persons. In the 18-39 and 40-59 age groups, those with income below the federal poverty level had higher rates of depression than those with higher income. Among persons 12-17 and 60 years of age and older, rates of depression did not vary significantly by poverty status.

Overall, approximately 80% of persons with depression reported some level of difficulty in functioning because of their depressive symptoms. In addition, 35% of males and 22% of females with depression reported that their depressive symptoms make it very or extremely difficult for them to work, get things done at home, or get along with other people. More than one-half of all persons with mild depressive symptoms also reported some difficulty in daily functioning attributable to their symptoms.

15–20 percent of adults older than age 65 in the United States have experienced depression (Geriatric Mental Health Foundation, 2008). 7 million adults aged 65 years and older are affected by depression (Steinman, 2007). Chronically ill Medicare beneficiaries with accompanying depression have significantly higher health care costs than those with chronic diseases alone (Unützer, 2009). People aged 65 years and older accounted for 16 percent of suicide deaths in 2004 (Centers for Disease Control and Prevention, 2007).

The negative outcomes associated with early onset depression, make it crucial to identify and treat depression in its early stages. As reported in Borner (2010), a study conducted by the World Health Organization (WHO) concluded that in North America, primary care and family physicians are likely to provide the first line of treatment for depressive disorders. Others consistently report a 10% prevalence rate of depression in primary care patients. But studies have shown that primary care physicians fail to recognize up to 50% of depressed patients, purportedly because of time constraints and a lack of brief, sensitive, easy-to-administer psychiatric screening instruments. Coyle et al. (2003), suggested that the picture is more grim for adolescents, and that more than 70% of children and adolescents suffering from serious mood disorders go unrecognized or inadequately treated. Healthy People 2020 recommends routine screening for mental health problems as a part of primary care for both children and adults (U.S. Department of Health and Human Services, 2014).

Major depressive disorder (MDD) is a debilitating condition that has been increasingly recognized among youth, particularly adolescents. The prevalence of current or recent depression among children is 3% and among
adolescents is 6%. The lifetime prevalence of MDD among adolescents may be as high as 20%. Adolescent-onset MDD is associated with an increased risk of death by suicide, suicide attempts, and recurrence of major depression by young adulthood. MDD is also associated with early pregnancy, decreased school performance, and impaired work, social, and family functioning during young adulthood (Williams et al., 2009). Every fifth adolescent may have a history of depression by age 18. The increase in the onset of depression occurs around puberty. According to Zalsman et al., (2006) as reported in Borner et al. (2010), depression ranks among the most commonly reported mental health problems in adolescent girls.

The economic burden of depression is substantial for individuals as well as society. Costs to an individual may include suffering, possible side effects from treatment, fees for mental health and medical visits and medications, time away from work and lost wages, transportation, and reduced quality of personal relationships. Costs to society may include loss of life, reduced productivity (because of both diminished capacity while at work and absenteeism from work), and increased costs of mental health and medical care. In 2000, the United States spent an estimated $83.1 billion in direct and indirect costs of depression (USPSTF, 2009).

CLINICAL RECOMMENDATION STATEMENTS:

Adolescent Recommendation (12-18 years)
The USPSTF recommends screening of adolescents (12-18 years of age) for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up (AHRQ, 2010, p.141).

Clinicians and health care systems should try to consistently screen adolescents ages 12-18 for major depressive disorder, but only when systems are in place to ensure accurate diagnosis, careful selection of treatment, and close follow-up (ICSI, 2013, p.16).

Adult Recommendation (18 years and older)
The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up (AHRQ, 2010, p.136).

A system that has embedded the elements of best practice and has capacity to effectively manage the volume should consider routine screening of all patients, based on the recommendations of the U.S. Preventive Services Task Force (ICSI, 2013, p.7). Clinicians should use a standardized instrument to screen for depression if it is suspected based on risk factors or presentation. Clinicians should assess and treat for depression in patients with some comorbidities. Clinicians should acknowledge the impact of culture and cultural differences on physician and mental health. Clinicians should screen and monitor depression in pregnant and post-partum women (ICSI, 2013, p.4).

MEASURE #226 - PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSTATION INTERVENTION

RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates...

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURES #431 - PREVENTIVE CARE AND SCREENING: UNHEALTHY ALCOHOL USE: SCREENING & BRIEF COUNSELING

RATIONALE:
This measure is intended to promote unhealthy alcohol use screening and brief counseling which have been shown to be effective in reducing alcohol consumption. About 30% of the U.S. population misuse alcohol, with most engaging in what is considered risky drinking. (SAMHSA, 2012) A recent analysis of data from the National Alcohol Survey shows that approximately one-third of at-risk drinkers (32.4%) and persons with a current alcohol use disorder (31.5%) in the United States had at least 1 primary care visit during the prior year, demonstrating the potential reach of screening and brief counseling for unhealthy alcohol use in the primary care setting. (Mulia et al., 2011) A number of studies, including patient and provider surveys, have documented low rates of alcohol misuse screening and counseling in primary care settings. In the national Healthcare for Communities Survey, only 8.7% of problem drinkers reported having been asked and counseled about their alcohol use in the last 12 months. (D'Amico et al., 2005) A nationally representative sample of 648 primary care physicians were surveyed to determine how such physicians identify--or fail to identify--substance abuse in their patients, what efforts they make to help these patients and what are the barriers to effective diagnosis and treatment. Of physicians who conducted annual health histories, less than half ask about the quantity and frequency of alcohol use (45.3 percent). Only 31.8 percent say they ever administer standard alcohol or drug use screening instruments to patients. (CASA, 2000)

CLINICAL RECOMMENDATION STATEMENTS:
The USPSTF recommends that clinicians screen adults aged 18 years or older for alcohol misuse and provide persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce alcohol misuse. (Grade B recommendation) (USPSTF, 2014)
CORONARY ARTERY BYPASS GRAFT (CABG) MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN CORONARY ARTERY BYPASS GRAFT (CABG) MEASURES GROUP:
#43 Coronary Artery Bypass Graft (CABG): Use of Internal Mammary Artery (IMA) in Patients with Isolated CABG Surgery
#44 Coronary Artery Bypass Graft (CABG): Preoperative Beta-Blocker in Patients with Isolated CABG Surgery
#164 Coronary Artery Bypass Graft (CABG): Prolonged Intubation
#165 Coronary Artery Bypass Graft (CABG): Deep Sternal Wound Infection Rate
#166 Coronary Artery Bypass Graft (CABG): Stroke
#167 Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure
#168 Coronary Artery Bypass Graft (CABG): Surgical Re-Exploration

INSTRUCTIONS FOR REPORTING:
- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8544: I intend to report the Coronary Artery Bypass Graft (CABG) Measures Group

- Report the patient sample method:
  20 Patient Sample Method: 20 unique procedures (patients – a majority of which must be Medicare Part B FFS [fee for service] patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the CABG Measures Group are patients aged 18 years and older that have a specific procedure for isolated CABG performed:

One of the following procedure codes indicating isolated coronary artery bypass graft: 33510, 33511, 33512, 33513, 33514, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536

- To satisfactorily report the CABG Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #167 need only be reported when the patient does not have a documented history of renal failure or baseline serum creatinine ≥ 4.0 mg/dL; renal transplant recipients are not considered to have preoperative renal failure, unless, since transplantation the Cr has been or is 4.0 or higher.

- Instructions for qualifying numerator option reporting for each of the measures within the Coronary Artery Bypass Graft (CABG) Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

Composite QDC G8497: All quality actions for the applicable measures in the Coronary Artery Bypass Graft (CABG) Measures Group have been performed for this patient

- This measures group contains one or more inverse measures. An inverse measure is a measure that represents a poor clinical quality action as meeting performance for the measure. For these measures, a lower performance rate indicates a higher quality of clinical care. Composite codes for measures groups that contain inverse measures are only utilized when the appropriate quality clinical care is given.
• The composite code for this measures group may be reported when codes in the summary table below are applicable for reporting of each measure within the measures group.

Table 5 - QDC Options

<table>
<thead>
<tr>
<th>Measure</th>
<th>#43</th>
<th>#44</th>
<th>#164*</th>
<th>#165*</th>
<th>#166*</th>
<th>#167*</th>
<th>#168*</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDC options for acceptable use of the composite QDC</td>
<td>4110F</td>
<td>4115F</td>
<td>G8570</td>
<td>G8572</td>
<td>G8574</td>
<td>G8576</td>
<td>G8578</td>
</tr>
</tbody>
</table>

*Indicates an inverse measure.

• Measure Group Reporting Calculations:

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

When a lower rate indicates better performance, such as Measure #164, a 0% performance rate will be counted as satisfactorily reporting (100% performance rate would not be considered satisfactorily reporting).

• NOTE: The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #43 (NQF 0134): Coronary Artery Bypass Graft (CABG): Use of Internal Mammary Artery (IMA) in Patients with Isolated CABG Surgery -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older undergoing isolated CABG surgery who received an IMA graft

NUMERATOR:
Patients undergoing isolated CABG who received an IMA graft

Numerator Options:

Performance Met:
Internal mammary artery graft performed for primary, isolated coronary artery bypass graft procedure (CABG) (4110F)

OR

Medical Performance Exclusion:
Documentation of medical reason(s) for not performing an internal mammary artery graft for primary, isolated coronary artery bypass graft procedure. Acceptable medical reasons include: subclavian stenosis, previous cardiac or thoracic surgery, previous mediastinal radiation, emergent or salvage procedure, no bypassable left anterior descending artery disease (4110F with 1P)

OR

Performance Not Met:
Internal mammary artery graft not performed for primary, isolated coronary artery bypass graft procedure, reason not otherwise specified (4110F with 8P)
**Measure #44 (NQF 0236): Coronary Artery Bypass Graft (CABG): Preoperative Beta-Blocker in Patients with Isolated CABG Surgery -- National Quality Strategy Domain: Effective Clinical Care**

**DESCRIPTION:**
Percentage of isolated Coronary Artery Bypass Graft (CABG) surgeries for patients aged 18 years and older who received a beta-blocker within 24 hours prior to surgical incision

**NUMERATOR:**
Patients who received a beta-blocker within 24 hours prior to surgical incision of isolated CABG surgeries

**Definitions:**
- **Isolated CABG** – Refers to CABG using arterial and/or venous grafts only.
- **Medical Reason** - Eligible professional must document specific reason(s) for not administering beta-blockers.

**Numerator Options:**

**Performance Met:**
- Beta blocker administered within 24 hours prior to surgical incision (4115F)

**OR**

**Medical Performance Exclusion:**
- Documentation of medical reason(s) for not administering beta blocker within 24 hours prior to surgical incision (eg, not indicated, contraindicated, other medical reason (4115F with 1P))

**OR**

**Performance Not Met:**
- Beta blocker not administered within 24 hours prior to surgical incision, reason not otherwise specified (4115F with 8P)
Measure #164 (NQF 0129): Coronary Artery Bypass Graft (CABG): Prolonged Intubation --
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older undergoing isolated CABG surgery who require postoperative intubation > 24 hours

NUMERATOR:
Patients undergoing isolated CABG who require intubation > 24 hours following exit from the operating room

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Numerator Options:
Performance Met: Prolonged postoperative intubation (> 24 hrs) required (G8569)
OR
Performance Not Met: Prolonged postoperative intubation (> 24 hrs) not required (G8570)

DESCRIPTION:
Percentage of patients aged 18 years and older undergoing isolated CABG surgery who, within 30 days postoperatively, develop deep sternal wound infection involving muscle, bone, and/or mediastinum requiring operative intervention.

NUMERATOR:
Patients who, within 30 days postoperatively, develop deep sternal wound infection involving muscle, bone, and/or mediastinum requiring operative intervention. Patient must have **ALL** of the following conditions: 1.) wound opened with excision of tissue (incision and drainage) or re-exploration of mediastinum, 2.) positive culture unless patient is on antibiotics at time of culture or no culture obtained, and 3.) treatment with antibiotics beyond perioperative prophylaxis.

Numerator Instructions:
**INVERSE MEASURE** - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Numerator Options:
**Performance Met:**
Development of deep sternal wound infection/mediastinitis within 30 days postoperatively (G8571)

**Performance Not Met:**
No deep sternal wound infection/mediastinitis (G8572)
Measure #166 (NQF 0131): Coronary Artery Bypass Graft (CABG): Stroke -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older undergoing isolated CABG surgery who have a postoperative stroke (i.e., any confirmed neurological deficit of abrupt onset caused by a disturbance in blood supply to the brain) that did not resolve within 24 hours

NUMERATOR:
Patients undergoing isolated CABG surgery who have a postoperative stroke (i.e., any confirmed neurological deficit of abrupt onset caused by a disturbance in blood supply to the brain) that did not resolve within 24 hours

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Numerator Options:
Performance Met: Stroke following isolated CABG surgery (G8573)

OR
Performance Not Met: No stroke following isolated CABG surgery (G8574)
Measure #167 (NQF 0114): Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure --
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older undergoing isolated CABG surgery (without pre-existing renal failure) who develop postoperative renal failure or require dialysis.

NUMERATOR:
Patients who develop postoperative renal failure or require dialysis; (Definition of renal failure/dialysis requirement - patient had acute renal failure or worsening renal function resulting in one of the following: 1) increase of serum creatinine to ≥ 4.0 mg/dL or 3x most recent preoperative creatinine level (acute rise must be at least 0.5 mg/dL), or 2) a new requirement for dialysis postoperatively)

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Numerator Options:
Performance Met: Developed postoperative renal failure or required dialysis (G8575)

OR
Performance Not Met: No postoperative renal failure/dialysis not required (G8576)
Measure #168 (NQF 0115): Coronary Artery Bypass Graft (CABG): Surgical Re-Exploration --
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older undergoing isolated CABG surgery who require a return to the operating room (OR) during the current hospitalization for mediastinal bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason

NUMERATOR:
Patients undergoing isolated CABG surgery who require a return to the OR during the current hospitalization for mediastinal bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Numerator Options:
Performance Met: Re-exploration required due to mediastinal bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason (G8577)

OR

Performance Not Met: Re-exploration not required due to mediastinal bleeding with or without tamponade, graft occlusion, valve dysfunction, or other cardiac reason (G8578)
MEASURE #43 - CORONARY ARTERY BYPASS GRAFT (CABG): USE OF INTERNAL MAMMARY ARTERY (IMA) IN PATIENTS WITH ISOLATED CABG SURGERY

RATIONALE:
A major innovation has been the introduction of off-bypass CABG, which has reduced the post-procedure length of stay in some centers to between 2 and 3 days. In some centers, this has led to a total 3-month cost for single-vessel coronary bypass that is not significantly different from the total 3-month cost for angioplasty of single-vessel disease. Considering the favorable long-term patency of an internal mammary artery (IMA) graft to the LAD, the cost reductions possible with off-bypass CABG may improve the relative cost-effectiveness of coronary bypass compared with either medical therapy or percutaneous techniques, particularly for symptomatic, proximal LAD disease.

CLINICAL RECOMMENDATION STATEMENTS:
Class I
In every patient undergoing CABG, the left internal mammary artery (IMA) should be given primary consideration for revascularization of the left anterior descending (LAD) artery. (Level of Evidence: B)

MEASURE #44 - CORONARY ARTERY BYPASS GRAFT (CABG): PREOPERATIVE BETA-BLOCKER IN PATIENTS WITH ISOLATED CABG SURGERY

RATIONALE:
Since its introduction in 1962, coronary artery bypass grafting (CABG) has continued to be the gold standard for revascularization of CAD, particularly in high-risk patients with multivessel disease. Evidence from multiple studies suggests that CABG prolongs survival especially in complex patients with diabetes, those aged 65 years or more, those with left main stem or triple-vessel disease, and those with impaired left ventricular function (El Bardissi et al., 2012).

The NHDS (NCHS) estimates that in 2010, in the United States, 219,000 patients underwent a total of 397,000 coronary artery bypass procedures (defined by procedure codes) (Go et al., 2014). Despite significant developments in PCI, CABG remains the most commonly used treatment option for patients with complex CAD and high-risk patients (El Bardissi et al., 2012).

Coronary revascularization, comprising coronary artery bypass graft (CABG) surgery and percutaneous coronary intervention (PCI), is among the most common major medical procedures provided by the US health care system, with more than 1 million procedures performed annually. It is also among the most costly procedure. Medicare inpatient payments to hospitals for coronary revascularizations exceeded $6.7 billion in fiscal year 2006 and is larger than the reimbursement for any other medical or surgical procedure (Epstein, 2011).

Postoperative atrial fibrillation (POAF) is a common complication following cardiac surgery, occurring in 25-40% of patients (Crystal, 2004, Burgess, 2006). POAF has been associated with increased rates of post-operative morbidity and mortality and consequently, increased costs (Mariscalco, 2008, Crystal, 2004, Bramer, 2010). Prophylactic administration of beta-blockers have been shown to reduce the risk of POAF and mortality following isolated coronary artery bypass graft surgery (Connolly, 2003, Mariscalco, 2008, Ferguson, 2002). Khan’s meta-analysis of RCTs found that “Preoperative BB initiation resulted in 52% reduction in the incidence of AF as compared to controls, however these results were not statistically significant.” El Bardissi (2012) showed a 19.5% increase in preoperative use of beta-blockers from 2000-2009.

Prophylaxis to prevent atrial fibrillation after cardiac surgery with any of the studied pharmacological or non-pharmacological interventions may be favored because of its reduction in the rate of atrial fibrillation, decrease in the length of stay and cost of hospital treatment and a possible decrease in the rate of stroke (Arsenault et al., 2013). “According to our findings, perioperative application of beta-blockers still plays a pivotal role in cardiac surgery, as they can substantially reduce the high burden of supraventricular and ventricular arrhythmias in the aftermath of
Postoperative AF after cardiac operations is associated with postoperative morbidities such as cerebrovascular accidents (CVA), infections (eg, sepsis, pneumonia and mediastinitis), and renal failure. Previous studies have suggested that POAF after CABG is related to early and late mortality (Bramer et al., 2010). Development of AF immediately after coronary artery bypass surgery (CABG) results in a longer stay in the intensive care unit and in hospital, together with a significantly higher (two-to-three-fold) risk of post-operative stroke (Burgess et al., 2006).

AF complicates up to 40% of the 500,000 patients per year undergoing CABG and increase the cost of the procedure by 10,055 per case resulting in incremental cost of about & 2 billion annually. It also increases the length of stay to additional 4-5 days and identifies a subset of patients at increased risk of morbidity, strokes and in-hospital and long-term mortality (Khan et al., 2013)

CLINICAL RECOMMENDATION STATEMENTS:
Preoperative Beta-blockers (ACCF/AHA, 2011):
Class I
1) Beta-blockers should be administered for at least 24 hours before CABG to all patients without contraindications to reduce the incidence or clinical sequelae of postoperative AF. (Level of Evidence: B), (ACCF/AHA, 2011)

Class IIA
1) Preoperative use of beta-blockers in patients without contraindications, particularly in those with an LV ejection fraction (LVEF) greater than 30%, can be effective in reducing the risk of in-hospital mortality. (Level of Evidence: B), (ACCF/AHA, 2011)
2) Beta-blockers can be effective in reducing the incidence of perioperative myocardial ischemia. (Level of Evidence: B), (ACCF/AHA, 2011)

Class IIB
1) The effectiveness of preoperative beta-blockers in reducing in-hospital mortality rate in patients with LVEF less than 30% is uncertain. (Level of Evidence: B), (ACCF/AHA, 2011)

Treatment of arrhythmias after revascularization (ESC/EACTS, 2014)

Class I
1) Beta-blockers are recommended to decrease the incidence of atrial fibrillation after CABG in the absence of contraindications. (Level of Evidence: A), (ESC/EACTS, 2014)

MEASURE #164 - CORONARY ARTERY BYPASS GRAFT (CABG): PROLONGED INTUBATION
RATIONALE:
Based on the STS coronary artery bypass graft (CABG) study population, the morbidity rate associated with prolonged intubation following CABG is 5.96%. Also, prolonged ventilation (defined as > 24 hours) was an independent predictor for re-admission to the ICU following CABG surgery (OR=10.53; CI: 6.18 to 17.91). Shorter ventilation times are linked to high quality of care (i.e., reduced in-hospital and operative mortality, as well as better long-term outcomes as compared to prolonged ventilation).

CLINICAL RECOMMENDATION STATEMENTS:
Extubation greater than (> 24 hours postoperatively is considered a “pulmonary complication.” Patients who were extubated more than 24 hours after surgery had a longer duration of hospital stay and a greater incidence of postoperative complications.
MEASURE #165 - CORONARY ARTERY BYPASS GRAFT (CABG): DEEP STERNAL WOUND INFECTION RATE
RATIONALE:
The most serious hospital-acquired infection associated with coronary artery bypass graft (CABG) surgery is deep sternal wound or deep surgical site infection. The most common bacteria involved are S. aureus including increasingly more common methicillin resistant Staph (MRS). For CABG only outcomes 1997-1999 the STS dataset reported 0.63% deep sternal wound infection rate in 503,478 records. A report from an academic hospital reported 1.9% deep surgical site infections (Centers for Disease Control and Prevention National Nosocomial Infection Surveillance [CDC NNIS] criteria) in 1,980 patients undergoing isolated CABG or CABG+ procedures from 1996-1999. The Northern New England Cardiovascular Disease Study Group reported an incidence rate for mediastinitis of 1.25% and noted a marked increase in mortality during the first year post-CABG and a threefold increase during a 4-year follow-up period.

CLINICAL RECOMMENDATION STATEMENTS:
Several risk factors for sternal wound infection have been identified that can be optimized with good care practices: prophylactic antibiotics within 1 hour before incision time (odds ratio 5.3) [see antibiotic timing process measure] and avoiding elevated blood glucose levels (odds ratio 10.2). Surveillance for surgical site infections is a critical hospital function to monitor infection control practices and direct improvement activity.

MEASURE #166 - CORONARY ARTERY BYPASS GRAFT (CABG): STROKE
RATIONALE:
Stroke is a devastating complication after coronary bypass surgery. The 1999 American College of Cardiology/American Heart Association (ACC/AHA) guidelines indicate that adverse cerebral outcomes are observed in ~6% of patients after bypass surgery equally divided between 2 types:

1) associated with major, focal neurological defects, stupor or coma and 2) evidence of deterioration in intellectual function. Type 1 deficits occur in ~3% of patients and are responsible for 21% mortality.

Reports in the literature on postoperative stroke incidence are difficult to compare because the conditions included in the term “stroke” vary. A standardized definition of stroke will provide common language to compare stroke incidence and evaluate management strategies for reducing this devastating complication.

Reported rates of postoperative cerebral dysfunction range from 0.4% to 13.8% following coronary operations. Complications for patients undergoing emergent CABG or valve surgery were greater than the complication rate for patients undergoing elective CABG or valve surgery. As bypass times increased, so did the incidence of stroke. When bypass time was 90 to 113 minutes, OR =1.59, p=0.022 and when bypass time was > 114 minutes, the OR =2.59, p < 0.001. Outcomes are better when patient age is younger and with beating-heart surgery rather than on-pump surgery.

CLINICAL RECOMMENDATION STATEMENTS:
The 1999 ACC/AHA guidelines describe strategies for reducing the risk of postoperative stroke such as an aggressive approach to the management of patients with severely diseased ascending aortas identified by intraoperative echocardiographic imaging, prevention or aggressive management of postoperative atrial fibrillation, delay of bypass surgery in the case of a left ventricular mural thrombus or a recent, preoperative CVA and preoperative carotid screening. Patients should carefully be screened for cerebrovascular disease to help prevent stroke and its associated morbidities.

Use of beta-adrenergic antagonists was associated with a lower incidence of stroke in patients undergoing elective CABG (OR=0.45; 95% CI 0.23 to 0.83; p=0.016). Use of antiplatelet agents within 48 hours of surgery is associated with a decreased risk of stroke (OR=0.51, p=0.01). Increased use of beating-heart surgery without cardiopulmonary bypass may lead to a lower prevalence of stroke following cardiac surgery and thus improve patient outcomes.
MEASURE #167 - CORONARY ARTERY BYPASS GRAFT (CABG): POSTOPERATIVE RENAL FAILURE RATIONALE:
In 2000, coronary artery bypass graft (CABG) surgery was performed on more than 350,000 patients at a cost of close to $20 billion. Some degree of Acute Renal Dysfunction (ARD) occurs in about 8% of patients following CABG, and dialysis-dependent renal failure occurs in 0.7% to 3.5% of patients receiving CABG. The latter is associated with substantial increases in morbidity, length of stay, and mortality (odds ratios for mortality range from 15 to 27). ARD is associated with increased morbidity, mortality and length of stay in an ICU following surgery. In addition, Acute Renal Failure occurs in 1.5% of patients undergoing any type of cardiac surgery. There has been a substantial increase in postoperative morbidity, mortality, and cost associated with this relatively common complication, regardless of whether or not this incidence varies much between providers, and there are implications of even a modest decrease in its incidence.

CLINICAL RECOMMENDATION STATEMENTS:
Acute renal failure following CABG is an intermediate outcome measure for mortality since this complication is independently associated (OR=27) with early mortality following cardiac surgery, even after adjustment for co-morbidity and postoperative complications.

MEASURE #168 - CORONARY ARTERY BYPASS GRAFT (CABG): SURGICAL RE-EXPLORATION RATIONALE:
In 2000, coronary artery bypass graft (CABG) surgery was performed on more than 350,000 patients at a cost of close to $20 billion. Re-exploration after surgery is a serious complication that impacts length of stay, efficient use of resources, and increases risk for additional complications and death. As one of several major complications of cardiac surgery, repeat surgery is particularly worrisome for consumers and is an inefficient use of resources.

CLINICAL RECOMMENDATION STATEMENTS:
Re-exploration after surgery is a serious complication that impacts length of stay, efficient use of resources, and increases risk for additional complications and death. This measure is currently in use by approximately 65% of providers in the United States who perform cardiac surgery and report data to the STS National Database.
RHEUMATOID ARTHRITIS (RA) MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUP:

2016 PQRS MEASURES IN RHEUMATOID ARTHRITIS (RA) MEASURES GROUP:

#108 Rheumatoid Arthritis (RA): Disease Modifying Anti-Rheumatic Drug (DMARD) Therapy
#128 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan
#131 Pain Assessment and Follow-Up
#176 Rheumatoid Arthritis (RA): Tuberculosis Screening
#177 Rheumatoid Arthritis (RA): Periodic Assessment of Disease Activity
#178 Rheumatoid Arthritis (RA): Functional Status Assessment
#179 Rheumatoid Arthritis (RA): Assessment and Classification of Disease Prognosis
#180 Rheumatoid Arthritis (RA): Glucocorticoid Management
#337 Tuberculosis Prevention for Psoriasis, Psoriatic Arthritis and Rheumatoid Arthritis Patients on a Biological Immune Response Modifier

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8490: I intend to report the Rheumatoid Arthritis Measures Group

- Report the patient sample method:

**20 Patient Sample Method via registries:** 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the RA Measures Group are patients aged 18 years and older with a specific diagnosis of RA accompanied by a specific patient encounter:

**One of the following diagnosis codes indicating rheumatoid arthritis:**

**ICD-10-CM:** M05.00, M05.011, M05.012, M05.019, M05.021, M05.022, M05.029, M05.031, M05.032, M05.039, M05.041, M05.042, M05.049, M05.051, M05.052, M05.059, M05.061, M05.062, M05.069, M05.071, M05.072, M05.079, M05.09, M05.111, M05.112, M05.119, M05.121, M05.122, M05.129, M05.131, M05.132, M05.139, M05.141, M05.142, M05.149, M05.151, M05.152, M05.159, M05.161, M05.162, M05.169, M05.171, M05.172, M05.179, M05.19, M05.20, M05.211, M05.212, M05.219, M05.221, M05.222, M05.229, M05.231, M05.232, M05.239, M05.241, M05.242, M05.249, M05.251, M05.252, M05.259, M05.261, M05.262, M05.269, M05.271, M05.272, M05.279, M05.29, M05.30, M05.311, M05.312, M05.319, M05.321, M05.322, M05.329, M05.331, M05.332, M05.339, M05.341, M05.342, M05.349, M05.351, M05.352, M05.359, M05.361, M05.362, M05.369, M05.371, M05.372, M05.379, M05.39, M05.40, M05.411, M05.412, M05.419, M05.421, M05.422, M05.429, M05.431, M05.432, M05.439, M05.441, M05.442, M05.449, M05.451, M05.452, M05.459, M05.461, M05.462, M05.469, M05.471, M05.472, M05.479, M05.49, M05.50, M05.511, M05.512, M05.519, M05.521, M05.522, M05.529, M05.531, M05.532, M05.539, M05.541, M05.542, M05.549, M05.551, M05.552, M05.559, M05.561, M05.562, M05.569, M05.571, M05.572, M05.579, M05.59, M05.60, M05.611, M05.612, M05.619, M05.621, M05.622, M05.629, M05.631, M05.632, M05.639, M05.641, M05.642, M05.649, M05.651, M05.652, M05.659, M05.661, M05.662, M05.669, M05.671, M05.672, M05.679, M05.69, M05.70, M05.711, M05.712, M05.719, M05.721, M05.722, M05.729, M05.731, M05.732, M05.739, M05.741, M05.742, M05.749, M05.751, M05.752, M05.759, M05.761, M05.762, M05.769, M05.771, M05.772, M05.779, M05.79, M05.80, M05.811, M05.812, M05.819, M05.821, M05.822, M05.829, M05.831, M05.832, M05.839, M05.841, M05.842, M05.849, M05.851, M05.852, M05.859, M05.861, M05.862, M05.869, M05.871, M05.872, M05.879, M05.89, M05.9,
Accompanied by:

One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, G0402

- To report satisfactorily the RA Measures Group it requires all applicable measures, for each patient within the eligible professional’s patient sample, to be reported a minimum of once during the reporting period.

- Measure #128 does not need to be reported (is not applicable) if the patient is considered not eligible for BMI calculation or follow-up plan – A patient is not eligible if one or more of the following reasons are documented:
  - Patient is receiving palliative care
  - Patient is pregnant
  - Patient refuses BMI measurement (refuses height and/or weight)
  - Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
  - Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

- When reporting measure #131, the documented follow-up plan must be related to the presence of pain, example: “Patient referred to pain management specialist for back pain” or “Return in two weeks for reassessment of pain”.

- Measure #337 is only applicable if the patient is on a biologic immune response modifier prescribed by the provider reporting the measures group (G9506 or equivalent).

- Instructions for qualifying numerator option reporting for each of the measures within the Rheumatoid Arthritis (RA) Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

**Composite QDC G8499:** All quality actions for the applicable measures in the Rheumatoid Arthritis Measures Group have been performed for this patient

- Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.
Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
**Measure #108 (NQF 0054): Rheumatoid Arthritis (RA): Disease Modifying Anti-Rheumatic Drug (DMARD) Therapy -- National Quality Strategy Domain: Effective Clinical Care**

**DESCRIPTION:**
Percentage of patients aged 18 years and older who were diagnosed with rheumatoid arthritis and were prescribed, dispensed, or administered at least one ambulatory prescription for a disease-modifying anti-rheumatic drug (DMARD)

**NUMERATOR:**
Patients who were prescribed, dispensed, or administered at least one disease modifying anti-rheumatic drug (DMARD) during the measurement period

**Definition:**
*Prescribed* – May include prescription given to the patient for DMARD therapy at one or more visits in the 12-month period OR patient already taking DMARD therapy as documented in current medication list.

**Table 6 - The DMARDs listed below are considered DMARDs for the purposes of this measure**

<table>
<thead>
<tr>
<th>Description</th>
<th>Prescription</th>
<th>J Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Aminosalicylates</td>
<td>Sulfasalazine</td>
<td>N/A</td>
</tr>
<tr>
<td>Alkylating agents</td>
<td>Cyclophosphamide</td>
<td>N/A</td>
</tr>
<tr>
<td>Aminoquinolines</td>
<td>Hydroxychloroquine</td>
<td>N/A</td>
</tr>
<tr>
<td>Anti-rheumatics</td>
<td>Auranofin</td>
<td>J1600, J9250, J9260</td>
</tr>
<tr>
<td></td>
<td>Gold sodium thiomolate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leflunomide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Methotrexate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Penicillamine</td>
<td></td>
</tr>
<tr>
<td>Immunomodulators</td>
<td>Abatacept</td>
<td>J0129, J0135, J0717, J0718, J1438, J1602, J1745, J3262, J9310</td>
</tr>
<tr>
<td></td>
<td>Adalimumab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anakinra</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certolizumab pegol</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Etanercept</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Golimumab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infliximab</td>
<td></td>
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<tr>
<td></td>
<td>Rituximab</td>
<td></td>
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<tr>
<td></td>
<td>Tocilizumab</td>
<td></td>
</tr>
<tr>
<td>Immunosuppressive agents</td>
<td>Azathioprine</td>
<td>J7502, J7515, J7516, J7517, J7518</td>
</tr>
<tr>
<td></td>
<td>Cyclosporine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mycophenolate</td>
<td></td>
</tr>
<tr>
<td>Janus kinase (JAK) Inhibitor</td>
<td>Tofacitinib</td>
<td>N/A</td>
</tr>
<tr>
<td>Tetracyclines</td>
<td>Minocycline</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Note: J codes should only be used to identify if the appropriate DMARD therapy was prescribed to the patient. CPT II codes are used when reporting this measure.*
Numerator Options:

Performance Met: Disease modifying anti-rheumatic drug therapy prescribed, dispensed, or administered (4187F)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for not prescribing, dispensing, or administering disease modifying anti-rheumatic drug therapy (i.e., patients with a diagnosis of HIV or pregnancy) (4187F with 1P)

OR

Performance Not Met: Disease modifying anti-rheumatic drug therapy was not prescribed, dispensed, or administered, reason not otherwise specified (4187F with 8P)
Measure #128 (NQF 0421): Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older with a BMI documented during the current encounter or during the previous six months AND with a BMI outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter

Normal Parameters:
- Age 65 years and older BMI ≥ 23 and < 30 kg/m²
- Age 18 – 64 years BMI ≥ 18.5 and < 25 kg/m²

NUMERATOR:
Patients with a documented BMI during the encounter or during the previous six months, AND when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter

Numerator Instructions:
- Height and Weight – An eligible professional or their staff is required to measure both height and weight. Both height and weight must be measured within six months of the current encounter and may be obtained from separate encounters. Self-reported values cannot be used.
- Follow-Up Plan – If the most recent documented BMI is outside of normal parameters, then a follow-up plan is documented during the encounter or during the previous six months of the current encounter. The documented follow-up plan must be based on the most recent documented BMI outside of normal parameters, example: “Patient referred to nutrition counseling for BMI above normal parameters.” (See Definitions for examples of a follow-up plan treatments)
- Performance Met for G8417 & G8418
  - If the provider documents a BMI and a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter, the provider documents a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter AND the patient has a documented follow-up plan for a BMI outside normal parameters within the previous six months of the current visit

Definitions:
BMI – Body mass index (BMI), is a number calculated using the Quetelet index: weight divided by height squared (W/H²) and is commonly used to classify weight categories. BMI can be calculated using:

Metric Units: BMI = Weight (kg) / (Height (m) x Height (m))

OR

English Units: BMI = Weight (lbs) / (Height (in) x Height (in)) x 703

Follow-Up Plan – Proposed outline of treatment to be conducted as a result of a BMI out of normal parameters. A follow-up plan may include but is not limited to:
- Documentation of education
- Referral (e.g., a registered dietitian/nutritionist, occupational therapist, physical therapist, primary care provider, exercise physiologist, mental health professional, or surgeon)
- Pharmacological interventions
- Dietary supplements
• Exercise counseling
• Nutrition counseling

Not Eligible for BMI Calculation or Follow-Up Plan – A patient is not eligible if one or more of the following reasons are documented:
• Patient is receiving palliative care
• Patient is pregnant
• Patient refuses BMI measurement (refuses height and/or weight)
• Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
• Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

Numerator Options:
Performance Met: BMI is documented within normal parameters and no follow-up plan is required (G8420)
OR
Performance Met: BMI is documented above normal parameters and a follow-up plan is documented (G8417)
OR
Performance Met: BMI is documented below normal parameters and a follow-up plan is documented (G8418)
OR
Performance Not Met: BMI not documented and no reason is given (G8421)
OR
Performance Not Met: BMI documented outside normal parameters, no follow-up plan documented, no reason given (G8419)
Measure #131 (NQF 0420): Pain Assessment and Follow-Up – National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of visits for patients aged 18 years and older with documentation of a pain assessment using a standardized tool(s) on each visit AND documentation of a follow-up plan when pain is present.

NUMERATOR:
Patient visits with a documented pain assessment using a standardized tool(s) AND documentation of a follow-up plan when pain is present.

Definitions:
- Pain Assessment - Documentation of a clinical assessment for the presence or absence of pain using a standardized tool is required. A multi-dimensional clinical assessment of pain using a standardized tool may include characteristics of pain; such as: location, intensity, description, and onset/duration.
- Standardized Tool – An assessment tool that has been appropriately normed and validated for the population in which it is used. Examples of tools for pain assessment, include, but are not limited to: Brief Pain Inventory (BPI), Faces Pain Scale (FPS), McGill Pain Questionnaire (MPQ), Multidimensional Pain Inventory (MPI), Neuropathic Pain Scale (NPS), Numeric Rating Scale (NRS), Oswestry Disability Index (ODI), Roland Morris Disability Questionnaire (RMDQ), Verbal Descriptor Scale (VDS), Verbal Numeric Rating Scale (VNRS) and Visual Analog Scale (VAS).
- Follow-Up Plan – A documented outline of care for a positive pain assessment is required. This must include a planned follow-up appointment or a referral, a notification to other care providers as applicable OR indicate the initial treatment plan is still in effect. These plans may include pharmacologic and/or educational interventions.
- Not Eligible – A patient is not eligible if one or more of the following reason(s) is documented:
  - Severe mental and/or physical incapacity where the person is unable to express himself/herself in a manner understood by others. For example, cases where pain cannot be accurately assessed through use of nationally recognized standardized pain assessment tools
  - Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status

NUMERATOR NOTE: The standardized tool used to assess the patient’s pain must be documented in the medical record (exception: A provider may use a fraction such as 5/10 for Numeric Rating Scale without documenting this actual tool name when assessing pain for intensity).

Numerator Options:
- Performance Met: Pain assessment documented as positive using a standardized tool AND a follow-up plan is documented (G8730)
- OR
- Performance Met: Pain assessment using a standardized tool is documented as negative, no follow-up plan required (G8731)
- OR
- Other Performance Exclusion: Pain assessment NOT documented as being performed, documentation the patient is not eligible for a pain assessment using a standardized tool (G8442)
OR
Other Performance Exclusion: Pain assessment documented as positive, follow-up plan not documented, documentation the patient is not eligible (G8939)

Performance Not Met: No documentation of pain assessment, reason not given (G8732)

OR
Performance Not Met: Pain assessment documented as positive using a standardized tool, follow-up plan not documented, reason not given (G8509)
Measure #176: Rheumatoid Arthritis (RA): Tuberculosis Screening -- National Quality Strategy
Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of rheumatoid arthritis (RA) who have documentation of a tuberculosis (TB) screening performed and results interpreted within 6 months prior to receiving a first course of therapy using a biologic disease-modifying anti-rheumatic drug (DMARD)

NUMERATOR:
Patients for whom a TB screening was performed and results interpreted within 6 months prior to receiving a first course of therapy using a biologic DMARD

Numerator Instructions: Patients are considered to be receiving a first course of therapy using a biologic DMARD only if they have never previously been prescribed or dispensed a biologic DMARD.

Definition:
Biologic DMARD Therapy – Includes Adalimumab, Etanercept, Infliximab, Abatacept, Anakinra (Rituximab is excluded).

Numerator Options:

Performance Met:
TB screening performed and results interpreted within six months prior to initiation of first-time biologic disease modifying anti-rheumatic drug therapy for RA (3455F)

AND
Patient receiving first-time biologic disease modifying anti-rheumatic drug therapy for rheumatoid arthritis (4195F)

OR
Medical Performance Exclusion:
Documentation of medical reason for not screening for TB or interpreting results (ie, patient positive for TB and documentation of past treatment; patient who has recently completed a course of anti-TB therapy) (3455F with 1P)

AND
Patient receiving first-time biologic disease modifying anti-rheumatic drug therapy for rheumatoid arthritis (4195F)

OR
Other Performance Exclusion:
Patient not receiving first-time biologic disease modifying anti-rheumatic drug therapy for rheumatoid arthritis (4196F)

OR
Performance Not Met:
TB screening not performed or results not interpreted, reason not otherwise specified (3455F with 8P)

AND
Patient receiving first-time biologic disease modifying anti-rheumatic drug therapy for rheumatoid arthritis (4195F)
Measure #177: Rheumatoid Arthritis (RA): Periodic Assessment of Disease Activity -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of rheumatoid arthritis (RA) who have an assessment and classification of disease activity within 12 months

NUMERATOR:
Patients with disease activity assessed by a standardized descriptive or numeric scale or composite index and classified into one of the following categories: low, moderate or high, at least once within 12 months

Definition:
Assessment and Classification of Disease Activity – Assesses if physicians are utilizing a standardized, systematic approach for evaluating the level of disease activity. The scales/instruments listed are examples of how to define activity level and cut-off points can differ by scale. Standardized descriptive or numeric scales and/or composite indexes could include but are not limited to: DAS28, SDAI, CDAI, RADAI, RAPID.

NUMERATOR NOTE: If the physician uses an alternate, standardized, systematic approach for evaluating the level of disease activity other than the tools listed above, that will be numerator compliant.

Numerator Options:
Performance Met: Rheumatoid arthritis (RA) disease activity, low (3470F)
OR
Performance Met: Rheumatoid arthritis (RA) disease activity, moderate (3471F)
OR
Performance Met: Rheumatoid arthritis (RA) disease activity, high (3472F)
OR
Performance Not Met: Disease activity not assessed and classified, reason not otherwise specified (3470F with 8P)
**Measure #178: Rheumatoid Arthritis (RA): Functional Status Assessment -- National Quality Strategy Domain: Effective Clinical Care**

**DESCRIPTION:**
Percentage of patients aged 18 years and older with a diagnosis of rheumatoid arthritis (RA) for whom a functional status assessment was performed at least once within 12 months.

**NUMERATOR:**
Patients for whom a functional status assessment was performed at least once within 12 months.

**Definitions:**
- **Functional Status Assessment** – This measure assesses if physicians are using a standardized descriptive or numeric scale, standardized questionnaire, or notation of assessment of the impact of RA on patient activities of daily living. Examples of tools used to assess functional status include but are not limited to: Health Assessment Questionnaire (HAQ), Modified HAQ, HAQ-2, American College of Rheumatology’s Classification of Functional Status in Rheumatoid Arthritis.
- **Activities of Daily Living** – Could include a description of any of the following: dressing/grooming, rising from sitting, walking/running/ability to ambulate, stair climbing, reaching, gripping, shopping/running errands/house or yard work.

**Numerator Options:**
- **Performance Met:** Functional status assessed (1170F)
- **Performance Not Met:** Functional status not assessed, reason not otherwise specified (1170F with 8P)
**Measure #179: Rheumatoid Arthritis (RA): Assessment and Classification of Disease Prognosis**
**-- National Quality Strategy Domain: Effective Clinical Care**

**DESCRIPTION:**
Percentage of patients aged 18 years and older with a diagnosis of rheumatoid arthritis (RA) who have an assessment and classification of disease prognosis at least once within 12 months.

**NUMERATOR:**
Patients with at least one documented assessment and classification (good/poor) of disease prognosis utilizing clinical markers of poor prognosis within 12 months.

**Numerator Instructions:**
This measure evaluates if physicians are assessing and classifying disease prognosis using a standardized, systematic approach. Disease prognosis should be classified as either poor or good.

**Definitions:**
- **Poor Prognosis** – RA patients with features of poor prognosis have active disease with high tender and swollen joint counts, often have evidence of radiographic erosions, elevated levels of rheumatoid factor (RF) and/or anti-cyclic citrullinated peptide (anti-CCP) antibodies, and an elevated erythrocyte sedimentation rate, and an elevated C-reactive protein level.
- **Clinically Important Markers of Poor Prognosis** – Classification should be based upon at least the following: functional limitation (e.g., HAQ Disability Index), extraarticular disease (e.g., vasculitis, Sjogren's syndrome, RA lung disease, rheumatoid nodules), RF positivity, positive anti-CCP antibodies (both characterized dichotomously, per CEP recommendation), and/or bony erosions by radiography.

**Numerator Options:**
- **Performance Met:** Disease prognosis for rheumatoid arthritis assessed, poor prognosis documented (3475F)
- **OR**
  - **Performance Met:** Disease prognosis for rheumatoid arthritis assessed, good prognosis documented (3476F)
- **OR**
  - **Performance Not Met:** Disease prognosis for rheumatoid arthritis not assessed and classified, reason not otherwise specified (3475F with 8P)
Measure #180: Rheumatoid Arthritis (RA): Glucocorticoid Management -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of rheumatoid arthritis (RA) who have been assessed for glucocorticoid use and, for those on prolonged doses of prednisone ≥ 10 mg daily (or equivalent) with improvement or no change in disease activity, documentation of glucocorticoid management plan within 12 months.

NUMERATOR:
Patients who have been assessed for glucocorticoid use and for those on prolonged doses of prednisone ≥ 10 mg daily (or equivalent) with improvement or no change in disease activity, documentation of a glucocorticoid management plan within 12 months.

Definitions:
- Prolonged Dose – Doses > 6 months in duration.
- Prednisone Equivalents – Determine using the following:
  1 mg of prednisone = 1 mg of prednisolone; 5 mg of cortisone; 4 mg of hydrocortisone; 0.8 mg of triamcinolone; 0.8 mg of methylprednisolone; 0.15 mg of dexamethasone; 0.15 mg of betamethasone.
- Glucocorticoid Management Plan – Includes documentation of attempt to taper steroids OR documentation of a new prescription for a non-glucocorticoid disease-modifying anti-rheumatic drug (DMARD) OR increase in dose of non-glucocorticoid DMARD dose for persistent RA disease activity at current or reduced dose.

Numerator Options:
Performance Met:
- Patient not receiving glucocorticoid therapy (4192F)
- OR
- Performance Met:
  - Patient receiving < 10 mg daily prednisone (or equivalent), or RA activity is worsening, or glucocorticoid use is for less than 6 months (4193F)
  - OR
  - Performance Met:
    - Patient receiving ≥ 10 mg daily prednisone (or equivalent) for longer than 6 months, and improvement or no change in disease activity (4194F)
  - AND
  - Glucocorticoid Management Plan documented (0540F)
  - OR
  - Medical Performance Exclusion:
    - Documentation of medical reason(s) for not documenting glucocorticoid management plan (ie, glucocorticoid prescription is for a medical condition other than RA) (0540F with 1P)
    - AND
    - Patient receiving ≥ 10 mg daily prednisone (or equivalent) for longer than 6 months, and improvement or no change in disease activity (4194F)
    - OR
    - Performance Not Met:
      - Glucocorticoid dose was not documented, reason not otherwise specified (4194F with 8P)
**Performance Not Met:**

Glucocorticoid management plan not documented, reason not otherwise specified (0540F with 8P)

AND

Patient receiving ≥ 10 mg daily prednisone (or equivalent) for longer than 6 months, and improvement or no change in disease activity (4194F)
Measure #337: Tuberculosis Prevention for Psoriasis, Psoriatic Arthritis and Rheumatoid Arthritis Patients on a Biological Immune Response Modifier -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients whose providers are ensuring active tuberculosis prevention either through yearly negative standard tuberculosis screening tests or are reviewing the patient’s history to determine if they have had appropriate management for a recent or prior positive test.

NUMERATOR:
Patients who have a documented negative annual TB screening or have documentation of the management of a positive TB screening test with no evidence of active tuberculosis, confirmed through use of radiographic imaging (i.e., chest x-ray, CT).

Definition:
Biologic Immune Response Modifier –
1) TNF-alpha inhibitors, to include, but not limited to Infliximab (Remicade), Adalimumab (Humira), Etanercept (Enbrel), or Golimumab (Simponi), Certolizumab (Cimzia).
2) Inhibitors of IL-12 and/or IL-23 or their receptors to include but not limited to Ustekinumab (Stelara).
3) B7 inhibitors, to include but not limited to Abatacept (Orencia).
4) Inhibitors of IL-17 family members or their receptors.

Numerator Options:

Performance Met: Documentation of negative or managed positive TB screen with further evidence that TB is not active (G9359)

OR

Performance Not Met: No documentation of negative or managed positive TB screen (G9360)
RHEUMATOID ARTHRITIS (RA) MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #108 - RHEUMATOID ARTHRITIS (RA): DISEASE MODIFYING ANTI-RHEUMATIC DRUG (DMARD) THERAPY

RATIONALE:
Early diagnosis and management of RA presents an important opportunity to alter the course of this progressive disease. Treatment in the first few months after disease onset takes advantage of a window of opportunity to effectively limit structural damage to joints and improves health outcomes. American College of Rheumatology (ACR) guidelines underscore early DMARD therapy.

CLINICAL RECOMMENDATION STATEMENTS:
The American College of Rheumatology (ACR) recommends targeting either low disease activity or remission in all patients with early RA (level of evidence C) and established RA (level of evidence C) receiving any DMARD or biologic agent.

In patients with early RA, the ACR recommends the use of DMARD monotherapy both for low disease activity and for moderate or high disease activity with the absence of poor prognostic features (level of evidence A – C). In patients with early RA, the ACR recommends the use of DMARD combination therapy (including double and triple therapy) in patients with moderate or high disease activity plus poor prognostic features (level of evidence A – C). In patients with early RA, the ACR also recommends the use of an anti-TNF biologic with or without methotrexate in patients who have high disease activity with poor prognostic features (level of evidence A and B). Infliximab is the only exception and the recommendation is to use it in combination with methotrexate, but not as monotherapy.

MEASURE #128 - PREVENTIVE CARE AND SCREENING: BODY MASS INDEX (BMI) SCREENING AND FOLLOW-UP PLAN

RATIONALE:
Normal Parameters for Age 65 Years and Older
Winter et al. (2014) performed a meta-analysis looking at the relationship between BMI and all-cause mortality among adults 65 and older. They identified a higher risk of mortality among those with a BMI <23 kg/m2 and recommended monitoring weight status in this group to address any modifiable causes of weight loss promptly with due consideration of individual comorbidities. Dahl et al. (2013) reported that old persons (70-79) who were overweight had a lower mortality risk than old persons who were of normal weight, even after controlling for weight change and multimorbidity. The study also shows that persons who increased or decreased in BMI had a greater mortality risk than those who had a stable BMI, particularly those aged 70 to 79. Their results provide support to the belief that the World Health Organization guidelines for BMI are overly restrictive in old age.

BMI Above Upper Parameters
Obesity continues to be a costly public health concern in the United States. The Centers for Disease Control and Prevention (CDC, 2010) reported in 2009, no state met the Healthy People 2010 obesity target of 15 percent and the self-reported overall prevalence of obesity among adults had increased 1.1 percentage points in 2007 to 26.7 percent (2010). Ogden, Carroll, Kit and Flegal (2013) reported the prevalence of BMI-defined obesity in adults is high and continues to exceed 30% in most sex-age groups (34.9% overall). They also stated the overall prevalence of obesity did not differ between men and women in 2011–2012; however, among non-Hispanic black adults, 56.6% of women were obese compared with 37.1% of men. In addition to the continued high prevalence rate for adults in general, Flegal, Carroll & Kit (2012) report a significant increase for men and for non-Hispanic black and Mexican American women over the 12-year period from 1999 through 2010 (2012). Moyer (2012) reported: Obesity is associated with such health problems as an increased risk for coronary artery disease, type 2 diabetes, various types of cancer, gallstones and disability. These comorbid medical conditions are associated with higher use of health care services and costs among obese patients (p. 373).
Obesity is also associated with an increased risk of death, particularly in adults younger than age 65 years and has been shown to reduce life expectancy by 6 to 20 years depending on age and race (LeBlanc et al., 2011). Masters, et al. (2013) also showed mortality due to obesity varied by race and gender. They estimated adult deaths between 1986 and 2006 associated with overweight and obesity was 5.0% and 15.6% for Black and White men, and 26.8% and 21.7% for Black and White women, respectively. They also found a stronger association than previous research demonstrated between obesity and mortality risk at older ages.

Finkelstein, Trogdon, Cohen and Dietz (2009) found that in 2006, across all payers, per capita medical spending for the obese is $1,429 higher per year, (42 percent) than for someone of normal weight. Using 2008 dollars, this was estimated to be equivalent to $147 billion dollars in medical care costs related to obesity.

Padula, Allen and Nair (2014) examined data from a commercial claims and encounters database to estimate the cost for obesity and associated comorbidities among working-age adults who had a claim with a primary or secondary diagnosis of obesity in 2006-2007. The mean net expenditure for inpatient and outpatient claims was $1,907 per patient per visit. The increases in cost for comorbidities ranged from $527 for obesity with CHF to $15,733 for the combination of obesity, diabetes mellitus, hypertension and depression.

In addition to a high prevalence rate of obesity, less than 50% of obese adults in 2010 received advice to exercise or perform physical activity (Barnes & Schoenborn, 2012).

BMI Below Normal Parameters
In the National Center for Health Statistics (NCHS) Health E-Stat, Fryer and Ogden (2012) reported that poor nutrition or underlying health conditions can result in underweight. Results from the 2007-2010 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate an estimated 1.7% of U.S. adults are underweight with women more likely to be underweight than men (2012).

In a cohort study conducted by Borrell and Lalitha (2014), data from NHANES III (1988-1994) was linked to the National Death Index mortality file with follow-up to 2006, and showed that when compared to their normal weight counterparts (BMI 18.5-25 kg/m²), underweight (BMI <18.5 kg/m²) had significantly higher death rates (Hazard Ratio= 2.27; 95% confidence interval (CI) = 1.78, 2.90).

Ranhoff, Gjoen and Mowe (2005) recommended using BMI < 23 kg/m² for the elderly to identify positive results with malnutrition screens and poor nutritional status.

CLINICAL RECOMMENDATION STATEMENTS:
Although multiple clinical recommendations addressing obesity have been developed by professional organizations, societies and associations, two recommendations have been identified which exemplify the intent of the measure and address the numerator and denominator.

The US Preventive Health Services Task Force (USPSTF) recommends screening all adults (aged 18 years and older) for obesity. Clinicians should offer or refer patients with a BMI of 30 or higher to intensive, multicomponent behavioral interventions. This is a B recommendation (Moyer, 2012).

As cited in Wilkinson et al. (2013), Institute for Clinical Systems Improvement (ICSI) Preventive Services for Adults, Obesity Screening (Level II) Recommendation provides the following guidance:

- Record height, weight and calculate body mass index at least annually
  - Clinicians should consider waist circumference measurement to estimate disease 25 to 34.9 kg/m², sex risk for patients who have BMI scores indicative of overweight or obesity class I. For adult patients with a BMI of specific waist circumference cutoffs should be used in conjunction with BMI to identify increased disease risk.
• A BMI greater or equal to 30 is defined as obese
• A BMI of 25-29 is defined as overweight
• Intensive intervention for obese individuals, based on BMI, is recommended by the U.S. Preventive Services to help control weight.

Similarly, the 2013 joint report/guideline from the American Heart Association, American College of Cardiology and The Obesity Society also recommend measuring height and weight and calculating BMI at annual visits or more frequently, using the current cutpoints for overweight (BMI>25.0-29.9 kg/m2) and obesity (BMI ≥30 kg/m2) to identify adults who may be at elevated risk of CVD and the current cutpoints for obesity to identify adults who may be at elevated risk of mortality from all causes. They also recommend counseling overweight and obese individuals on their increased risk for CVD, type 2 diabetes, all-cause mortality and need for lifestyle changes.

MEASURE #131 – PAIN ASSESSMENT AND FOLLOW-UP
RATIONALE:
Chronic pain is defined as pain without biological values that has persisted beyond the normal time and despite the usual customary efforts to diagnose and treat the original condition and injury. If a patient’s pain has persisted for six weeks (or longer than the anticipated healing time), a thorough evaluation for the course of the chronic pain is warranted (ICSI, 2013).

Chronic pain affects approximately 100 million adults in the USA. (Gaskin, 2012). It is clear the enormous pain-related costs represent both a great challenge and an opportunity in terms of improving the quality and cost-effectiveness of care (Mayday Fund, 2009).

Research also shows gender differences in the experience and treatment of pain. Most chronic pain conditions are more prevalent among women; however, women’s pain complaints tend to be poorly assessed and undertreated (Green, 2003; Chronic Pain Research Alliance 2011, Weimer 2013). Although women may have higher baseline pain, differences in pain levels may not persist at one month (Peterson, 2012).

A growing body of research reveals even more extensive gaps in pain assessment and treatment among racial and ethnic populations, with minorities receiving less care for pain than non-Hispanic whites (Burgess, 2013; Green, 2003; Green, 2007; Green et al., 2011; Todd et al., 2004; Todd et al., 2007). Differences in pain care occur across all types of pain (e.g., acute, chronic, cancer-related) and medical settings (e.g., emergency departments and primary care) (Green, 2003; Green, 2007; Todd et al., 2007). Even when income, insurance status and access to health care are accounted for, minorities are still less likely than whites to receive necessary pain treatments (Green, 2003; Green, 2007; Paulson et al., 2007). Black race is associated with neighborhood socio-economic status (SES) and race plays a role in pain outcomes beyond SES (Green, 2012)

“When assessing and treating pain, practitioner sex, race, age, and duration of experience were all significantly associated with pain management decisions. These findings suggest that pain assessment and treatment decisions may be impacted by the health care providers’ demographic characteristics, effects which may contribute to pain management disparities.”(Bartley et al., 2015).

“A standard minimum pain assessment for back-pain patients should integrate pain intensity (e.g. VAS/NRS), pain affect (e.g. five-point VRS) and pain-related disability. Depending on more detailed research questions, more sophisticated questionnaires on pain affect (e.g. MPQ), coping strategies and fear-avoidance behavior should be used. This allows for a more comprehensive assessment of pain and factors influencing pain perception.” (Haefeli M., Effering. A., 2005).
The American Pain Foundation (2009) identified pertinent facts related to the impact of pain as follows:

- Approximately 76.5 million Americans suffer from pain.
- Pain affects more Americans than diabetes, heart disease and cancer combined. It is the number one reason people seek medical care.
- Uncontrolled pain is a leading cause of disability and diminishes quality of life for patients, survivors, and their loved ones. It interferes with all aspects of daily activity, including sleep, work, social and sexual relations.
- Under-treated pain drives up costs – estimated at $100 billion annually in healthcare expenses, lost income, and lost productivity– extending length of hospital stays, as well as increasing emergency room trips and unplanned clinic visits.
- Medically underserved populations endure a disproportionate pain burden in all health care settings.
- Disparities exist among racial and ethnic minorities in pain perception, assessment, and treatment for all types of pain, whether chronic or acute.

The Institute Of Medicine’s (IOM) Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research (2011) report suggests that chronic pain rates will continue to increase as a result of:

- More Americans will experience a disease in which chronic pain is associated (diabetes, cardiovascular disease, etc.).
- Increase in obesity which is associated with chronic conditions that have painful symptoms.
- Progress in lifesaving techniques for catastrophic injuries for people who would have previously died leads to a group of young people at risk for lifelong chronic pain.
- Surgical patients are at risk for acute and chronic pain.
- The public has a better understanding of chronic pain syndromes and new treatments and therefore may seek help when they may not have sought help in the past.

There are no current estimates of the total cost of poorly controlled pain in today’s dollars. Viewed from the perspective of health care inflation at levels of more than 40% during the past decade (President’s Council of Economic Advisors, 2009), the cost of health care due to pain is estimated to be between $261 to $300 billion. The value of lost productivity based on estimates of days of work missed is $11.6 to 12.7 billion, hours of work lost is 95.2 to $96.5 billion and lower wages is $190.6 to $226.3 billion.

**CLINICAL RECOMMENDATION STATEMENTS:**

Chronic pain assessment should include determining the mechanisms of pain through documentation of pain location, intensity, quality and onset/duration; functional ability and goals; and psychological/social factors such as depression or substance abuse.

A patient-centered, multifactorial, comprehensive care plan is necessary; one that includes biopsychosocial factors, as well as spiritual and cultural issues. It is important to have an interdisciplinary team approach which includes the primary care physician and specialty areas of psychology and physical rehabilitation.

The Institute for Clinical Systems Improvement (ICSI, 2013) Assessment and Management of Chronic Pain Guideline, Sixth Edition is based on a very broad foundation of evidence addressing a wide range of clinical conditions. It was chosen because it addresses the key factors of the comprehensive plan of care which incorporates self-management and active input from the patient and primary care clinician, pain assessment outcomes and referral to a pain medicine specialist or pain medicine specialty clinic.

The Institute for Clinical Systems Improvement (ICSI, 2012) Adult Acute and Sub-acute Low Back Pain guideline provides guidelines for physical therapists for low back pain assessment criteria, reducing or eliminating imaging for diagnosis of non-specific low back pain in patients 18 years and older, first-line treatment which emphasizes patient education and a core treatment plan that includes encouraging activity, use of heat, no imaging, cautious and
responsible use of opioids, anti-inflammatory and analgesic over-the-counter medications and return to work assessment, advising patients with acute or subacute low back pain to stay active and the use of opioids.

Low Back Pain: Clinical Guidelines Linked to the International Classification of Functioning, Disability, and Health from the Orthopedic Section of the American Physical Therapy Association (Delitto, 2012) provides evidence to classify musculoskeletal conditions, specify interventions and identify appropriate outcome measures.

“Initial physical therapy management was not associated with increased health care costs or utilization of specific services following a new primary care LBP consultation” (Fritz, 2013, p. 1).

Anchored numerical scales are recommended for tracking routine progress, particularly pain interference with important activities. Regional or condition functional outcome scales should be routinely used at baseline and periodic follow-ups. More frequent follow-up is recommended with higher frequency care. (Washington State Department of Labor and Industries, 2014)

MEASURE #176 - RHEUMATOID ARTHRITIS (RA): TUBERCULOSIS SCREENING
RATIONALE:
Before initiating biologic DMARDs for a patient with RA, it is essential to screen the patient for tuberculosis, as research has documented a higher incidence of TB after anti-TNFα therapy. All patients being considered for biologic DMARD should receive a tuberculin skin test, even if the patient has previously received the BCG vaccination. Test results, in addition to patient risk for TB and other tests, should be used to assess the patient’s risk for latent TB infection. This is a patient safety measure.

CLINICAL RECOMMENDATION STATEMENTS:
The American College of Rheumatology recommends screening to identify latent TB infection (LTBI) in all RA patients being considered for therapy with biologic agents, regardless of the presence of risk factors for LTBI. (Level of Evidence: C) (ACR, 2012)

MEASURE #177 - RHEUMATOID ARTHRITIS (RA): PERIODIC ASSESSMENT OF DISEASE ACTIVITY
RATIONALE:
After establishing a diagnosis of RA, risk assessment is crucial for guiding optimal treatment. For the purposes of selecting therapies, physicians should consider the patient’s disease activity at the time of the treatment decisions.

CLINICAL RECOMMENDATION STATEMENTS:
Several indices to measure RA disease activity have been developed each of which has advantages and disadvantages. Evidence-based guidelines require clear definitions of disease activity to make rational therapeutic choices, but it is not possible or appropriate to mandate use of a single disease activity score for the individual physician, and different studies have used different definitions. Therefore, the TFP was asked to consider a combined estimation of disease activity, which allowed reference to many past definitions. With these instruments as our guide, we rated RA disease activity in an ordinal manner as low, moderate, or high. (ACR, 2008)

MEASURE #178 - RHEUMATOID ARTHRITIS (RA): FUNCTIONAL STATUS ASSESSMENT
RATIONALE:
Functional limitations are a significant and disruptive complication for patients living with RA. Assessments of functional limitations are used to assess prognosis and guide treatment and therapy decisions. Functional status should be assessed at the baseline and each follow-up visit, using questionnaires such as the ACR’s Classification of Functional Status in RA or the Health Assessment Questionnaire or an assessment of activities of daily living. Regardless of the assessment tool used, it should indicate whether a functional decline is due to inflammation, mechanical damage, or both, as treatment strategies will vary accordingly.

CLINICAL RECOMMENDATION STATEMENTS:
The management of RA is an iterative process, and patients should be periodically reassessed for evidence of disease or limitation of function with significant alteration of joint anatomy. Baseline evaluation of disease activity and damage in patients with rheumatoid arthritis through evaluation of functional status or quality of life assessments using standardized questionnaires, a physician’s global assessment of disease activity, or patient’s global assessment of disease activity. The initial evaluation of the patient with RA should document symptoms of active disease (i.e., presence of joint pain, duration of morning stiffness, degree of fatigue), functional status, objective evidence of disease activity (i.e., synovitis, as assessed by tender and swollen joint counts, and the ESR or CRP level), and mechanical joint problems.

At each follow up visit, the physician must assess whether the disease is active or inactive. Symptoms of inflammatory (as contrasted with mechanical) joint disease, which include prolonged morning stiffness, duration of fatigue, and active synovitis on joint examination, indicate active disease and necessitate consideration of changing the treatment program. Occasionally, findings of the joint examination alone may not adequately reflect disease activity and structural damage; therefore, periodic measurements of the ESR or CRP level and functional status, as well as radiographic examinations of involved joints should be performed. It is important to determine whether a decline in function is the result of inflammation, mechanical damage, or both; treatment strategies will differ accordingly. (ACR, 2002)

**MEASURE #179 - RHEUMATOID ARTHRITIS (RA): ASSESSMENT AND CLASSIFICATION OF DISEASE PROGNOSIS**

**RATIONALE:**
After establishing a diagnosis of RA, risk assessment is crucial for guiding optimal treatment. For the purposes of selecting therapies, physicians should consider the presence of these prognostic factors at the time of the treatment decisions.

**CLINICAL RECOMMENDATION STATEMENTS:**
Poor prognosis is suggested by earlier age at disease onset, high titer of RF, elevated ESR, and swelling of > 20 joints. Extraarticular manifestations of RA, such as rheumatoid nodules, Sjogren’s syndrome, episcleritis and scleritis, interstitial lung disease, pericardial involvement, systemic vasculitis, and Felty’s syndrome, may also indicate a worse prognosis. Since studies have demonstrated that treatment with DMARDs may alter the disease course in patients with recent-onset RA, particularly those with unfavorable prognostic factors, aggressive treatment should be initiated as soon as the diagnosis has been established. (Level C Evidence) (ACR, 2008)

Assessment of prognosis should be performed at baseline, before starting medications, to assess organ dysfunction due to comorbid diseases. The literature agrees that a thorough assessment includes recording a complete blood cell count, electrolyte levels, creatinine levels, hepatic enzyme levels (AST – aspartate aminotransferase, ALT – alanine aminotransferase, and albumin), and performing a urinalysis and stool guaiac. If necessary prognosis at baseline should rule out other diseases; this may be repeated during disease flares to rule out septic arthritis through synovial fluid analysis. (Level C Evidence) (ACR, 2008)

**MEASURE #180 - RHEUMATOID ARTHRITIS (RA): GLUCOCORTICOID MANAGEMENT**

**RATIONALE:**
Glucocorticoids are an important part of RA treatment as they inhibit inflammation and may control synovitis. However, long-term use of glucocorticoids, especially at high doses, should be avoided, due to the potential health complications. Monitoring length and dose of glucocorticoid treatment for patients with RA is integral to making other clinical decisions.

**CLINICAL RECOMMENDATION STATEMENTS:**
Low-dose oral glucocorticoids and local injections of glucocorticoids are highly effective for relieving symptoms in patients with active RA. The benefits of low-dose systemic glucocorticoids, however, should always be weighed against their adverse effects. The adverse effects of long-term oral glucocorticoids at low doses are protean and include osteoporosis, hypertension, weight gain, fluid retention, hyperglycemia, cataracts, and skin fragility, as well as the potential for premature atherosclerosis. These adverse effects should be considered and should be discussed in
detail with the patient before glucocorticoid therapy is begun. For long term disease control, the glucocorticoid dosage should be kept to a minimum. For the majority of patients with RA, this means equal or less than 10 mg of prednisone per day. (ACR, 2002)

MEASURE #337 - TUBERCULOSIS PREVENTION FOR PSORIASIS, PSORIATIC ARTHRITIS AND RHEUMATOID ARTHRITIS PATIENTS ON A BIOLOGICAL IMMUNE RESPONSE MODIFIER

RATIONALE:
The safety of biologics in terms of their long-term adverse events and their use in different types of psoriasis and in different patient populations is important for clinicians to understand and monitor. Biologics have been associated with a variety of serious and “routine” opportunistic infections, particularly tuberculosis. For this reason, anti-tuberculosis testing both prior to the initiation of a biologic therapy and annually during treatment is pertinent.

CLINICAL RECOMMENDATION STATEMENTS:
When planning to initiate treatment of a patient with psoriasis with a biologic it is important to obtain an age appropriate history and physical examination along with an updated medication list. In addition, it is also important to obtain a reliable set of baseline laboratory studies that will allow the clinician to detect and be aware of any underlying conditions or risk factors. This is particularly important because after patients have been initiated on a biologic treatment, they are likely to be treated with other biologics or systemic therapies and it may be useful to have reliable baseline laboratory studies. Tuberculosis testing (PPD) should be performed on all patients who will be treated with TNF inhibitors as there are reports of tuberculosis reactivation in patients treated with this class of drug. (AAD)
HEPATITIS C MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN HEPATITIS C MEASURES GROUP:

#84  Hepatitis C: Ribonucleic Acid (RNA) Testing Before Initiating Treatment
#85  Hepatitis C: HCV Genotype Testing Prior to Treatment
#87  Hepatitis C: Hepatitis C Virus (HCV) Ribonucleic Acid (RNA) Testing Between 4-12 Weeks After Initiation of Treatment
#130 Documentation of Current Medications in the Medical Record
#183  Hepatitis C: Hepatitis A Vaccination
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#390  Hepatitis C: Discussion and Shared Decision Making Surrounding Treatment Options
#401  Hepatitis C: Screening for Hepatocellular Carcinoma (HCC) in Patients with Cirrhosis

INSTRUCTIONS FOR REPORTING:

• It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8545: I intend to report the Hepatitis C Measures Group

• Report the patient sample method:

  20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

• Patient sample criteria for the Hepatitis C Measures Group are patients aged 18 years and older with a specific diagnosis of chronic hepatitis C accompanied by a specific patient encounter:

  One of the following diagnosis codes indicating chronic hepatitis C:
  ICD-10-CM: B18.2

  Accompanied by:

  One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99406, 99407

• To satisfactorily report the Hepatitis C Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional's patient sample, a minimum of once during the reporting period.

• Measure #87 only needs to be reported if initiation of antiviral treatment took place before October of the measurement year (12 weeks before the end of the measurement period)

• Measure #401 only needs to be reported when the patient also has the following diagnosis code indicating cirrhosis:

  ICD-10-CM: K70.30, K70.31, K74.60, K74.69

• Instructions for qualifying numerator option reporting for each of the measures within the Hepatitis C Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.
**Composite QDC G8549:** All quality actions for the applicable measures in the Hepatitis C Measures Group have been performed for this patient

- **Measure Group Reporting Calculations:**

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #84 (NQF 0395): Hepatitis C: Ribonucleic Acid (RNA) Testing Before Initiating Treatment
-- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of chronic hepatitis C who started antiviral treatment within the 12 month reporting period for whom quantitative hepatitis C virus (HCV) ribonucleic acid (RNA) testing was performed within 12 months prior to initiation of antiviral treatment.

NUMERATOR:
Patients for whom quantitative HCV RNA testing was performed within 12 months prior to initiation of antiviral treatment.

Numerator Options:
Performance Met:
- RNA testing for hepatitis C documented as performed within 12 months prior to initiation of antiviral treatment for hepatitis C (G9203)
- AND
- Patient starting antiviral treatment for hepatitis C during the measurement period (G9205)

OR
Other Performance Exclusion:
- Patient did not start or is not receiving antiviral treatment for hepatitis C during the measurement period (G9499)

OR
Performance Not Met:
- RNA testing for hepatitis C was not documented as performed within 12 months prior to initiation of antiviral treatment for hepatitis C, reason not given (G9204)
- AND
- Patient starting antiviral treatment for hepatitis C during the measurement period (G9205)
Measure #85 (NQF 0396): Hepatitis C: Hepatitis C Virus (HCV) Genotype Testing Prior to Treatment -- National Quality Strategy Domain: Effective Clinical Care

**DESCRIPTION:**
Percentage of patients aged 18 years and older with a diagnosis of chronic hepatitis C who started antiviral treatment within the 12 month reporting period for whom hepatitis C virus (HCV) genotype testing was performed within 12 months prior to initiation of antiviral treatment.

**NUMERATOR:**
Patients for whom HCV genotype testing was performed within 12 months prior to initiation of antiviral treatment.

**Numerator Options:**

**Performance Met:**
Hepatitis C genotype testing documented as performed within 12 months prior to initiation of antiviral treatment for hepatitis C (G9207)

AND

Patient starting antiviral treatment for hepatitis C during the measurement period (G9206)

OR

**Other Performance Exclusion:**
Clinician documented that patient is not an eligible candidate for genotype testing; patient not receiving antiviral treatment for hepatitis C during the measurement period (e.g. Genotype test done prior to the reporting period, patient declines, patient not a candidate for antiviral treatment) (G8458)

OR

**Performance Not Met:**
Hepatitis C genotype testing was not documented as performed within 12 months prior to initiation of antiviral treatment for hepatitis C, reason not given (G9208)

AND

Patient starting antiviral treatment for hepatitis C during the measurement period (G9206)
Measure #87 (NQF 0398): Hepatitis C: Hepatitis C Virus (HCV) Ribonucleic Acid (RNA) Testing Between 4–12 Weeks After Initiation of Treatment -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of chronic hepatitis C who are receiving antiviral treatment for whom quantitative hepatitis C virus (HCV) ribonucleic acid (RNA) testing was performed between 4-12 weeks after the initiation of antiviral treatment

NUMERATOR:
Patients for whom quantitative HCV RNA testing was performed at no greater than 12 weeks from the initiation of antiviral treatment

Definition:
4-12 Weeks after Initiation – Patients for whom testing was performed between 4-12 weeks from the initiation of antiviral treatment will meet the numerator for this measure, acknowledging that there may be different recommended follow-up testing based on the specific antiviral therapy used to treat a particular patient.

Numerator Options:
Performance Met: Hepatitis C quantitative RNA testing documented as performed between 4-12 weeks after the initiation of antiviral treatment (G9209)

AND

Patient receiving antiviral treatment for hepatitis C during the measurement period (G8461)

OR

Other Performance Exclusion: Hepatitis C quantitative RNA testing not performed between 4-12 weeks after the initiation of antiviral treatment for documented reason(s) (e.g., patients whose treatment was discontinued during the testing period prior to testing, other medical reasons, patient declined, other patient reasons) (G9210)

AND

Patient receiving antiviral treatment for hepatitis C during the measurement period (G8461)

OR

Other Performance Exclusion: Clinician documented that patient is not an eligible candidate for quantitative RNA testing; patient not receiving antiviral treatment for Hepatitis C (G8460)

OR

Performance Not Met: Hepatitis C quantitative RNA testing was not documented as performed between 4-12 weeks after the initiation of antiviral treatment, reason not given (G9211)

AND

Patient receiving antiviral treatment for hepatitis C during the measurement period (G8461)
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record --
National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency and route of administration.

Definitions:
- Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication's name, dosage, frequency and administered route.
- Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
- Not Eligible - A patient is not eligible if the following reason is documented:
  - Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
- Performance Met: Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

  OR

- Other Performance Exclusion: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

  OR

- Performance Not Met: Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
% Measure #183 (NQF 0399): Hepatitis C: Hepatitis A Vaccination – National Quality Strategy
Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of chronic hepatitis C who have received at least one injection of hepatitis A vaccine, or who have documented immunity to hepatitis A

NUMERATOR:
Patients who have received at least one injection of hepatitis A vaccine, or who have documented immunity to hepatitis A

Definition:
Received – Includes at least one injection of hepatitis A vaccine during a current or prior visit, or previous receipt from another provider.

Numerator Options:
Performance Met: Hepatitis A vaccine injection administered or previously received (4148F)
OR
Performance Met: Patient has documented immunity to hepatitis A (3215F)
OR
Medical Performance Exclusion: Documentation of medical reason(s) for not administering at least one injection of hepatitis A vaccine (eg, allergy or intolerance to a known component of the vaccine, other medical reasons) (4148F with 1P)
OR
Patient Performance Exclusion: Documentation of patient reason(s) for not administering at least one injection of hepatitis A vaccine (eg, patient declined, insurance coverage, other patient reasons) (4148F with 2P)
OR
Performance Not Met: Hepatitis A vaccine not received, reason not otherwise specified (4148F with 8P)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

Definitions:
Tobacco Use – Includes use of any type of tobacco.
Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

OR
Performance Met: Current tobacco non-user (1036F)

OR
Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)

OR
Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
Measure #390: Hepatitis C: Discussion and Shared Decision Making Surrounding Treatment Options – National Quality Strategy Domain: Person and Caregiver-Centered Experience and Outcomes

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of hepatitis C with whom a physician or other qualified healthcare professional reviewed the range of treatment options appropriate to their genotype and demonstrated a shared decision making approach with the patient. To meet the measure, there must be documentation in the patient record of a discussion between the physician or other qualified healthcare professional and the patient that includes all of the following: treatment choices appropriate to genotype, risks and benefits, evidence of effectiveness, and patient preferences toward treatment.

NUMERATOR:
Patients with whom a physician or other qualified healthcare professional reviewed the range of treatment options appropriate to their genotype and demonstrated a shared decision making approach with the patient.

Numerator Options:
Performance Met:
Documentation in the patient record of a discussion between the physician/clinician and the patient that includes all of the following: treatment choices appropriate to genotype, risks and benefits, evidence of effectiveness, and patient preferences toward the outcome of the treatment (G9399)

OR
Other Performance Exclusion:
Documentation of medical or patient reason(s) for not discussing treatment options. Medical reasons: Patient is not a candidate for treatment due to advanced physical or mental health comorbidity (including active substance use); currently receiving antiviral treatment; successful antiviral treatment (with sustained virologic response) prior to reporting period; other documented medical reasons. Patient reasons: Patient unable or unwilling to participate in the discussion or other patient reasons (G9400)

OR
Performance Not Met:
No documentation of a discussion in the patient record of a discussion between the physician or other qualified healthcare professional and the patient that includes all of the following: treatment choices appropriate to genotype, risks and benefits, evidence of effectiveness, and patient preferences toward treatment (G9401)
Measure #401: Hepatitis C: Screening for Hepatocellular Carcinoma (HCC) in Patients with Cirrhosis -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of chronic hepatitis C cirrhosis who underwent imaging with either ultrasound, contrast enhanced CT or MRI for hepatocellular carcinoma (HCC) at least once within the 12 month reporting period.

NUMERATOR:
Patients who underwent abdominal imaging with either ultrasound, contrast enhanced CT or MRI.

Numerator Options:

Performance Met:
Patient underwent abdominal imaging with ultrasound, contrast enhanced CT or contrast MRI for HCC (G9455)

OR

Other Performance Exclusion:
Documentation of medical or patient reason(s) for not ordering or performing screening for HCC. Medical reason: Comorbid medical conditions with expected survival <5 years, hepatic decompensation and not a candidate for liver transplantation, or other medical reasons. Patient reasons: Patient declined or other patient reasons (e.g., cost of tests, time related to accessing testing equipment) (G9456)

OR

Performance Not Met:
Patient did not undergo abdominal imaging and did not have a documented reason for not undergoing abdominal imaging in the reporting period (G9457)
HEPATITIC C MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #84 - HEPATITIS C: RIBONUCLEIC ACID (RNA) TESTING BEFORE INITIATING TREATMENT
RATIONALE:
A sensitive quantitative HCV RNA assay is recommended prior to initiating treatment because it provides information on the level of virus which is helpful in management. Establishment of the baseline viral RNA level is very important in interpreting the response to therapy. Use of this measure should help to guide treatment decisions regarding duration of therapy and likelihood of response, which should improve outcomes.

CLINICAL RECOMMENDATION STATEMENTS:
HCV RNA testing should be performed in:

a) Patients with a positive anti-HCV test
b) Patients for whom antiviral treatment is being considered, using a sensitive quantitative assay
c) Patients with unexplained liver disease whose anti-HCV test is negative and who are immunocompromised or suspected of having acute HCV infection (AASLD, 2009)

HCV RNA should be tested by a highly sensitive quantitative assay at the initiation of or shortly before treatment and at week 12 of therapy. (AASLD, 2009)

MEASURE #85 - HEPATITIS C: HCV GENOTYPE TESTING PRIOR TO TREATMENT
RATIONALE:
The rationale for the measure is to guide treatment decisions regarding duration of therapy and likelihood of response, which should improve outcomes. There are 6 HCV genotypes and more than 50 subtypes. These genotypes differ by as much as 31 to 34 percent in their nucleotide sequences, whereas subtypes differ by 20 to 23 percent based on full-length genomic sequence comparisons. Genotype determinations influence treatment decisions. Patients with genotypes 2 or 3 have better response rates to re-treatment than those with genotype 1. (NIH) More recently, treatment of genotype 1b has shown the most favorable outcomes leading to differences in the licensure and use of new therapies by sub-genotype.

CLINICAL RECOMMENDATION STATEMENTS:
HCV genotyping should be performed in all HCV-infected persons prior to interferon-based treatment in order to plan for the dose and duration of therapy and to estimate the likelihood of response. (AASLD, 2009)

The HCV genotype must be assessed prior to antiviral treatment initiation and will determine the dose of ribavirin and treatment decision. (EASL, 2011)

MEASURE #87 - HEPATITIS C: HCV RIBONUCLEIC ACID (RNA) TESTING BETWEEN 4-12 WEEKS OF TREATMENT
RATIONALE:
Monitoring effectiveness of antiviral therapy is essential to effective treatment. An early virologic response (EVR), during the first 12 weeks of therapy, is a valuable clinical milestone.

Patients should be monitored during therapy to assess the response to treatment and for the occurrence of side effects. A reasonable schedule would be monthly visits during the first 12 weeks of treatment followed by visits at 8 to 12 week intervals thereafter until the end of therapy. At each visit the patient should be questioned regarding the presence of side effects and depression. They should also be queried about adherence to treatment. Laboratory monitoring should include measurement of the complete blood count, serum creatinine and ALT levels, and HCV RNA by a sensitive assay at weeks 4, 12, 24, 4 to 12 week intervals thereafter, the end of treatment, and 24 weeks after stopping treatment. (AASLD, 2009)
CLINICAL RECOMMENDATION STATEMENTS:
HCV RNA should be tested by a highly sensitive quantitative assay at the initiation of or shortly before treatment and at week 12 of therapy. (AASLD, 2009)

Patients [with genotype 1] without cirrhosis treated with boceprevir, peginterferon, and ribavirin, preceded by 4 weeks of lead-in peginterferon and ribavirin, whose HCV RNA level at weeks 8 and 24 is undetectable, may be considered for a shortened duration of treatment of 28 weeks in total (4 weeks lead-in with peginterferon and ribavirin followed by 24 weeks of triple therapy). (AASLD, 2011)

Patients [with genotype 1] without cirrhosis treated with telaprevir, peginterferon, and ribavirin, whose HCV RNA level at weeks 4 and 12 is undetectable should be considered for a shortened duration of therapy of 24 weeks. (AASLD, 2011)

MEASURE #130 - DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD
RATIONALE:
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADEs) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.
According to the AMA’s published report, The Physician’s Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on “Prevalence of Adverse Drug Events in Ambulatory Care” finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality’s (AHRQ) The National Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings as 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and gender. The disparities were identified as follows: older Asians were more likely than older whites to have inappropriate drug use (20.3% compared with 17.3%); older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted that fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks, et al found there is an opportunity for universal medication lists utilizing health IT.

CLINICAL RECOMMENDATION STATEMENTS:
The Joint Commission’s 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission’s 2015 Ambulatory Care National Patient Safety Goals).

The National Quality Forum’s 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.
The AMA’s published report, *The Physician’s Role in Medication Reconciliation*, identified the best practice medication reconciliation team as one that is multidisciplinary and— in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

**MEASURE #183 - HEPATITIS C: HEPATITIS A VACCINATION**  
**RATIONALE:**  
The hepatitis A vaccination decreases the potential for a patient acquiring hepatitis A which would contribute to further liver damage. A single report has suggested that superimposition of hepatitis A virus infection in persons with chronic liver disease, particularly those with hepatitis C, was associated with fulminant hepatitis. Therefore, it is recommended that persons with chronic HCV infection who lack evidence of preexisting antibody to hepatitis A be administered the hepatitis A vaccine.

**CLINICAL RECOMMENDATION STATEMENTS:**
All persons with chronic HCV infection who lack antibodies to hepatitis A and B should be offered vaccination against these two viral infections. (AASLD, 2009)

Patients with chronic hepatitis C should be vaccinated against HAV and HBV. (EASL, 2011)

**MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION**  
**RATIONALE:**  
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)
Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

**MEASURE #390 – HEPATITIS C: DISCUSSION AND SHARED DECISION MAKING SURROUNDING TREATMENT OPTIONS**

**RATIONALE:**
Shared decision making has the potential to provide numerous benefits for patients, clinicians, and the health care system, including increased patient knowledge, less anxiety over the care process, improved health outcomes, reductions in unwarranted variation in care and costs, and greater alignment of care with patients’ values (Lee, E., & Emanuel, E., 2013). In hepatitis C, the decision about whether to initiate treatment is sensitive to patient preferences about achieving cure and limiting symptoms versus tolerating side effects of medications (Colter, et. al., 2001). It is also intuitive that patients are more likely to be adherent to treatment if they are engaged in the decision to start. Numerous studies have documented problems with patient-physician communication in this population (Zickmund, et. al., 2004), and patient misperceptions and lack of education have been implicated as barriers to treatment (Zickmund & Bielefeldt, 2007; Richmond, et. al., 2007; McNally’s, et. al., 2006). For these reasons, it is likely that shared decision making would improve decision quality, result in more effective antiviral therapy, and better patient health outcomes.

**CLINICAL RECOMMENDATION STATEMENTS:**
The decision to defer treatment for a specific patient should consider the patient’s preferences and priorities, the natural history and risk of progression, the presence of co-morbidities, and the patient’s age. (EASL, 2014).

Treatment decisions should be individualized based on the severity of liver disease, the potential for serious side effects, the likelihood of treatment response, the presence of comorbid conditions, and the patient’s readiness for treatment (Class IIa, Level C). (AASLD, 2009)

The Institute of Medicine endorses shared decision-making and the strongly recommends use of decision aids as a way to foster patient-centered care (Committee on Quality of Health Care in American Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: National Academies Press; 2001)

**MEASURE #401 – HEPATITIS C: SCREENING FOR HEPATOCELLULAR CARCINOMA (HCC) IN PATIENTS WITH CIRRHOSIS**

**RATIONALE:**
HCC (hepatocellular carcinoma) is the fourth most common cancer in the world and is the fastest rising cause of cancer-related deaths in the United States. HCV is the leading cause of HCC and the risk of developing HCC is highest in patients with established HCV cirrhosis.

Several potentially curative treatments are available for patients with early-stage HCC. These include surgical resection, liver transplantation, and local ablation. Long-term survival of patients who have liver resection or transplantation for HCC can be high (40% to 70% for resection and 52% to 81% for transplant patients after 5 years) (Kansagara 2014).

A recent systematic review of 18 nonrandomized studies found that screened patients had early-stage HCC than clinically diagnosed patients. More screened patients received potentially curative treatment. However, these studies were limited by their observational nature (including lead time bias) and thus the effect on overall mortality was unclear. There are no randomized controlled trials that evaluated the impact of HCC screening versus no screening on survival in patients with cirrhosis. A randomized trial of HCC screening is not forthcoming because, even in the
absence of high quality data, most informed patients and their clinicians consider randomization unethical and prefer surveillance (Poustchi 2011). In a recent modeling based study (that corrected for lead time bias), US based screening for HCC in compensated HCV cirrhosis patients reduced mortality compared to no screening (Mourad 2014).

Collectively, these data suggest that screening has a potential to produce benefits in the highest-risk patients, such as those with HCV cirrhosis who are good candidates for potentially curative treatment (Atkins AIM 2014).

**CLINICAL RECOMMENDATION STATEMENTS:**
Patients at high risk for developing HCC, including patients with hepatitis C cirrhosis, should be entered into surveillance programs. (Level II) Surveillance for HCC should be performed using ultrasonography (Level II). Patients should be screened at 6-month intervals (level II) (AASLD, 2011).

HCC surveillance must be continued indefinitely in patients with cirrhosis (A1). Patients with cirrhosis should undergo regular surveillance for HCC, irrespective of SVR (B1) (EASL, 2014)

While current guidelines only specify using ultrasound, evidence suggests that using multiple screening methods, including incorporating the alpha fetoprotein biomarker into surveillance plans, may be more effective in identifying early stages of HCC.
HEART FAILURE (HF) MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN HEART FAILURE (HF) MEASURES GROUP:

#5 Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)

#8 Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

#47 Care Plan

#110 Preventive Care and Screening: Influenza Immunization

#130 Documentation of Current Medications in the Medical Record

#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8548: I intend to report the Heart Failure (HF) Measures Group

- Report the patient sample method:

**20 Patient Sample Method via registries:** 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the HF Measures Group are patients with two denominator eligible visits aged 18 years and older with a specific diagnosis of HF accompanied by a specific patient encounter:

  **One of the following diagnosis codes indicating heart failure:**
  **ICD-10-CM:** I11.0, I13.0, I13.2, I50.1, I50.20, I50.21, I50.22, I50.23, I50.30, I50.31, I50.32, I50.33, I50.40, I50.41, I50.42, I50.43, I50.9

  **Accompanied by:**

  **One of the following patient encounter codes:** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

- To satisfactorily report the HF Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measures #5 and #8 are represented differently from the corresponding individual measures. Therefore the individual measures are specified and analyzed in a slightly different manner than the same measures contained within the measures group. Use the measure specifications as defined within the measures group for reporting purposes in order to satisfactorily report the measures group.

- Measure #47 need only be reported on patients 65 years and older.
• Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2015-2016 influenza season OR between October and December for the 2016-2017 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate. Measure #110 need only be reported on patients 18 years and older.

• Instructions for qualifying numerator option reporting for each of the measures within the Heart Failure (HF) Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  **Composite QDC G8551:** All quality actions for the applicable measures in the Heart Failure (HF) Measures Group have been performed for this patient

• Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

• **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #5 (NQF 0081): Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD) -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB therapy either within a 12 month period when seen in the outpatient setting OR at each hospital discharge.

NUMERATOR:
Patients who were prescribed ACE inhibitor or ARB therapy within a 12 month period when seen in the outpatient setting.

Numerator Instructions: LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe dysfunction. The LVSD may be determined by quantitative or qualitative assessment, which may be current or historical. Examples of a quantitative or qualitative assessment may include an echocardiogram: 1) that provides a numerical value of LVSD or 2) that uses descriptive terms such as moderately or severely depressed left ventricular systolic function. Any current or prior ejection fraction study documenting LVSD can be used to identify patients.

Definition:
Prescribed - Outpatient setting: prescription given to the patient for ACE inhibitor or ARB therapy at one or more visits in the measurement period OR patient already taking ACE inhibitor or ARB therapy as documented in current medication list.

NUMERATOR NOTE: The reporting numerator options contained within this specification are represented differently than the corresponding individual measure. Reference this specification only in order to satisfactorily report the measures group.

For purposes of the Heart Failure Measures Group, hospital discharge codes are not included as part of the common denominator. This measure should only be reported on those patients seen in the outpatient setting.

Numerator Options:
Performance Met:
Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) therapy prescribed or currently being taken (4010F)

AND

Left ventricular ejection fraction (LVEF) less than 40% or documentation of moderately or severely depressed left ventricular systolic function (3021F)

OR

Medical Performance Exclusion:
Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB therapy (eg, hypotensive patients who are at immediate risk of cardiogenic shock, hospitalized patients who have experienced marked azotemia, allergy, intolerance, other medical reasons) (4010F with 1P)

OR

Patient Performance Exclusion:
Documentation of patient reason(s) for not prescribing ACE inhibitor or ARB therapy (eg, patient declined, other patient reasons) (4010F with 2P)
**System Performance Exclusion:**

Documentation of system reason(s) for not prescribing ACE inhibitor or ARB therapy (eg, other system reasons) *(4010F with 3P)*

AND

Left ventricular ejection fraction (LVEF) less than 40% or documentation of moderately or severely depressed left ventricular systolic function *(3021F)*

**Other Performance Exclusion:**

Left ventricular ejection fraction (LVEF) greater than or equal to 40% or documentation as normal or mildly depressed left ventricular systolic function *(3022F)*

**Other Performance Exclusion:**

Left ventricular ejection fraction (LVEF) was not performed or documented *(3021F with 8P)*

**Performance Not Met:**

Angiotensin converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy was not prescribed, reason not otherwise specified *(4010F with 8P)*

AND

Left ventricular ejection fraction less than 40% or documentation of moderately or severely depressed left ventricular systolic function *(3021F)*
Measure #8 (NQF 0083): Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12 month period when seen in the outpatient setting OR at each hospital discharge.

NUMERATOR:
Patients who were prescribed beta-blocker therapy within a 12 month period when seen in the outpatient setting.

Numerator Instructions: LVEF < 40% corresponds to qualitative documentation of moderate dysfunction or severe left ventricular systolic function. The left ventricular systolic dysfunction may be determined by quantitative or qualitative assessment, which may be current or historical. Examples of a quantitative or qualitative assessment may include an echocardiogram: 1) that provides a numerical value of left ventricular systolic dysfunction or 2) that uses descriptive terms such as moderately or severely depressed left ventricular systolic function. Any current or prior ejection fraction study documenting LVSD can be used to identify patients.

Definitions:
Prescribed – Outpatient Setting: prescription given to the patient for beta-blocker therapy at one or more visits in the measurement period OR patient already taking beta-blocker therapy as documented in current medication list.

Beta-blocker Therapy: For patients with prior LVEF < 40%, beta-blocker therapy should include bisoprolol, carvedilol, or sustained release metoprolol succinate.

Numerator Note: The reporting numerator options contained within this specification are represented differently than the corresponding individual measure. Reference this specification only in order to satisfactorily report the measures group.

For purposes of the Heart Failure Measures Group, hospital discharge codes are not included as part of the common denominator. This measure should only be reported on those patients seen in the outpatient setting.

Numerator Options:
Performance Met: Beta-blocker therapy prescribed (G8450)
AND
Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function (G8923)
OR
Other Performance Exclusion: Beta-Blocker Therapy for LVEF < 40% not prescribed for reasons documented by the clinician (e.g., low blood pressure, fluid overload, asthma, patients recently treated with an intravenous positive inotropic agent, allergy, intolerance, other medical reasons, patient declined, other patient reasons, or other reasons attributable to the healthcare system) (G8451)
AND
Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function (G8923)
Other Performance Exclusion:

OR

Other Performance Exclusion:
Left ventricular ejection fraction (LVEF) $\geq 40\%$ or documentation as normal or mildly depressed left ventricular systolic function (G8395)

OR

Other Performance Exclusion:
Left ventricular ejection fraction (LVEF) not performed or documented (G8396)

Performance Not Met:

Beta-blocker therapy not prescribed (G8452)

AND

Left ventricular ejection fraction (LVEF) $< 40\%$ or documentation of moderately or severely depressed left ventricular systolic function (G8923)
Measure #47 (NQF 0326): Care Plan -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

NUMERATOR:
Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

Numerator Instructions: If patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, report 1124F.

Definition:
Documentation that Patient did not Wish or was not able to Name a Surrogate Decision Maker or Provide an Advance Care Plan – May also include, as appropriate, the following:
- That the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship.

NUMERATOR NOTE: The CPT Category II codes used for this measure indicate: Advance Care Planning was discussed and documented. The act of using the Category II codes on a claim (or equivalent medical record documentation) indicates the provider confirmed that the Advance Care Plan was in the medical record (that is, at the point in time the code was assigned, the Advance Care Plan in the medical record was valid) or that advance care planning was discussed. The codes (or equivalent medical record documentation) are required annually to ensure that the provider either confirms annually that the plan in the medical record is still appropriate or starts a new discussion.

The provider does not need to review the Advance Care Plan annually with the patient to meet the numerator criteria; documentation of a previously developed advanced care plan that is still valid in the medical record meets numerator criteria.

Numerator Options:
Performance Met: Advance Care Planning discussed and documented; advance care plan or surrogate decision maker documented in the medical record (1123F)

OR
Performance Met: Advance Care Planning discussed and documented in the medical record; patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan (1124F)

OR
Performance Not Met: Advance care planning not documented, reason not otherwise specified (1123F with 8P)
Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

NUMERATOR:
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

Numerator Instructions:
- If reporting this measure between January 1, 2016 and March 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2015 or January, February, and March of 2016 for the flu season ending March 31, 2016.
- If reporting this measure between October 1, 2016 and December 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2016 for the flu season ending March 31, 2017.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2015-2016 flu season OR 2016-2017 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, G8482 should be reported.

Definition:
Previous Receipt - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

NUMERATOR NOTE: The numerator for this measure can be met by reporting either administration of an influenza vaccination or that the patient reported previous receipt of the current season’s influenza immunization. If the performance of the numerator is not met, a clinician can report a valid performance exclusion for having not administered an influenza vaccination. For clinicians reporting a performance exclusion for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

Numerator Options:
Performance Met: Influenza immunization administered or previously received (G8482)

OR

Other Performance Exclusion: Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) (G8483)

OR

Performance Not Met: Influenza immunization was not administered, reason not given (G8484)
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record -- National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient's current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met: Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

OR

Other Performance Exclusion: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR

Performance Not Met: Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

Definitions:
Tobacco Use – Includes use of any type of tobacco.
Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

OR
Performance Met: Current tobacco non-user (1036F)

OR
Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)

OR
Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
HEART FAILURE MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #5 - HEART FAILURE (HF): ANGIOTENSIN-CONVERTING ENZYME (ACE) INHIBITOR OR ANGIOTENSIN RECEPTOR BLOCKER (ARB) THERAPY FOR LEFT VENTRICULAR SYSTOLIC DYSFUNCTION (LVSD)

RATIONALE:
In the absence of contraindications, ACE inhibitors or ARBs are recommended for all patients with symptoms of heart failure and reduced left ventricular systolic function. ACE inhibitors remain the first choice for inhibition of the renin-angiotensin system in chronic heart failure, but ARBs can now be considered a reasonable alternative. Both pharmacologic agents have been shown to decrease the risk of death and hospitalization. Additional benefits of ACE inhibitors include the alleviation of symptoms and the improvement of clinical status and overall sense of well-being of patients with heart failure.

CLINICAL RECOMMENDATION STATEMENTS:
ACE inhibitors are recommended in patients with HFrEF [heart failure with reduced ejection fraction] and current or prior symptoms, unless contraindicated, to reduce morbidity and mortality. (Class I, Level of Evidence: A) (ACCF/AHA, 2013)

Treatment with an ACE inhibitor should be initiated at low doses [see excerpt from guideline table below], followed by gradual dose increments if lower doses have been well tolerated... Clinicians should attempt to use doses that have been shown to reduce the risk of cardiovascular events in clinical trials. If these target doses of an ACE inhibitor cannot be used or are poorly tolerated, intermediate doses should be used with the expectation that there are likely to be only small differences in efficacy between low and high doses. Abrupt withdrawal of treatment with an ACE inhibitor can lead to clinical deterioration and should be avoided. (ACCF/AHA, 2013)

Drugs Commonly Used for Stage C HFrEF (abbreviated to align with focus of measure to include only ACE inhibitors and ARB therapy)

Table 7 - Drugs Commonly Used for Stage C HFrEF. Rows 3 - 10 define Ace Inhibitors. Rows 11-13 define Angiotensin Receptor Blockers

<table>
<thead>
<tr>
<th>Drug</th>
<th>Initial Daily Dose(s)</th>
<th>Maximum Doses(s)</th>
<th>Mean Doses Achieved in Clinical Trials</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE Inhibitors</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Captopril</td>
<td>6.25 mg 3 times</td>
<td>50 mg 3 times</td>
<td>122.7 mg/d</td>
</tr>
<tr>
<td>Enalapril</td>
<td>2.5 mg twice</td>
<td>10 to 20 mg twice</td>
<td>16.6 mg/d</td>
</tr>
<tr>
<td>Fosinopril</td>
<td>5 to 10 mg once</td>
<td>40 mg once</td>
<td>N/A</td>
</tr>
<tr>
<td>Lisinopril</td>
<td>2.5 to 5 mg once</td>
<td>20 to 40 mg once</td>
<td>32.5 to 35.0 mg/d</td>
</tr>
<tr>
<td>Perindopril</td>
<td>2 mg once</td>
<td>8 to 16 mg once</td>
<td>N/A</td>
</tr>
<tr>
<td>Quinapril</td>
<td>5 mg twice</td>
<td>20 mg twice</td>
<td>N/A</td>
</tr>
<tr>
<td>Ramipril</td>
<td>1.25 to 2.5 mg once</td>
<td>10 mg once</td>
<td>N/A</td>
</tr>
<tr>
<td>Trandolapril</td>
<td>1 mg once</td>
<td>4 mg once</td>
<td>N/A</td>
</tr>
<tr>
<td>Drug</td>
<td>Initial Daily Dose(s)</td>
<td>Maximum Doses(s)</td>
<td>Mean Doses Achieved in Clinical Trials</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------</td>
<td>------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Angiotensin Receptor Blockers</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Candesartan</td>
<td>4 to 8 mg once</td>
<td>32 mg once</td>
<td>24 mg/d</td>
</tr>
<tr>
<td>Losartan</td>
<td>25 to 50 mg once</td>
<td>50 to 150 mg once</td>
<td>129 mg/d</td>
</tr>
<tr>
<td>Valsartan</td>
<td>20 to 40 mg twice</td>
<td>160 mg twice</td>
<td>254 mg/d</td>
</tr>
</tbody>
</table>

ARBs are recommended in patients with HFrEF with current or prior symptoms who are ACE inhibitor intolerant, unless contraindicated, to reduce morbidity and mortality. (Class I, Level of Evidence: A) (ACCF/AHA, 2013)

ARBs are reasonable to reduce morbidity and mortality as alternatives to ACE inhibitors as first-line therapy for patients with HFrEF, especially for patients already taking ARBs for other indications, unless contraindicated. (Class IIa, Level of Evidence: A) (ACCF/AHA, 2013)

Addition of an ARB may be considered in persistently symptomatic patients with HFrEF who are already being treated with an ACE inhibitor and a beta blocker in whom an aldosterone antagonist is not indicated or tolerated. (Class IIb, Level of Evidence: A) (ACCF/AHA, 2013)

For the hospitalized patient:
In patients with HFrEF experiencing a symptomatic exacerbation of HF requiring hospitalization during chronic maintenance treatment with GDMT [guideline-directed medical therapy; GDMT represents optimal medical therapy as defined by ACCF/AHA guideline-recommended therapies (primarily Class I)], it is recommended that GDMT be continued in the absence of hemodynamic instability or contraindications. (Class I, Level of Evidence: B) (ACCF/AHA, 2013)

**MEASURE #8 - HEART FAILURE (HF): BETA-BLOCKER THERAPY FOR LEFT VENTRICULAR SYSTOLIC DYSFUNCTION (LVSD)**

**RATIONALE:**
Beta-blockers are recommended for all patients with stable heart failure and left ventricular systolic dysfunction, unless contraindicated. Treatment should be initiated as soon as a patient is diagnosed with left ventricular systolic dysfunction and does not have low blood pressure, fluid overload, or recent treatment with an intravenous positive inotropic agent. Beta-blockers have been shown to lessen the symptoms of heart failure, improve the clinical status of patients, reduce future clinical deterioration, and decrease the risk of mortality and the combined risk of mortality and hospitalization.

**CLINICAL RECOMMENDATION STATEMENTS:**
Use of 1 of the 3 beta blockers proven to reduce mortality (e.g., bisoprolol, carvedilol, and sustained-release metoprolol succinate) is recommended for all patients with current or prior symptoms of HFrEF [heart failure with reduced ejection fraction], unless contraindicated, to reduce morbidity and mortality. (Class I, Level of Evidence: A) (ACCF/AHA, 2013)

Treatment with a beta blocker should be initiated at very low doses [see excerpt from guideline table below] followed by gradual increments in dose if lower doses have been well tolerated... Clinicians should make every effort to achieve the target doses of the beta blockers shown to be effective in major clinical trials. Even if symptoms do not improve, long-term treatment should be maintained to reduce the risk of major clinical events. Abrupt withdrawal of treatment with a beta blocker can lead to clinical deterioration and should be avoided. (ACCF/AHA, 2013)
Table 8 - Drugs Commonly Used for Stage C HFrEF (abbreviated to align with focus of measure to include only Beta-blocker therapy)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Initial Daily Dose(s)</th>
<th>Maximum Dose(s)</th>
<th>Mean Doses Achieved in Clinical Trials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta blockers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisoprolol</td>
<td>1.25 mg once</td>
<td>10 mg once</td>
<td>8.6 mg/d</td>
</tr>
<tr>
<td>Carvedilol</td>
<td>3.125 mg twice</td>
<td>50 mg twice</td>
<td>37 mg/d</td>
</tr>
<tr>
<td>Carvedilol CR</td>
<td>10 mg once</td>
<td>80 mg once</td>
<td>N/A</td>
</tr>
<tr>
<td>Metoprolol succinate extended release (metoprolol CR/XL)</td>
<td>12.5 to 25 mg once</td>
<td>200 mg once</td>
<td>159 mg/d</td>
</tr>
</tbody>
</table>

For the hospitalized patient:
In patients with HFrEF experiencing a symptomatic exacerbation of HF requiring hospitalization during chronic maintenance treatment with GDMT [guideline-directed medical therapy; GDMT represents optimal medical therapy as defined by ACCF/AHA guideline-recommended therapies (primarily Class I)], it is recommended that GDMT be continued in the absence of hemodynamic instability or contraindications. (Class I, Level of Evidence: B) (ACCF/AHA, 2013)

Initiation of beta-blocker therapy is recommended after optimization of volume status and successful discontinuation of intravenous diuretics, vasodilators, and inotropic agents. Beta-blocker therapy should be initiated at a low dose and only in stable patients. Caution should be used when initiating beta blockers in patients who have required inotropes during their hospital course. (Class I, Level of Evidence: B) (ACCF/AHA, 2013)

MEASURE #47 - CARE PLAN
RATIONALE:
It is essential that the patient’s wishes regarding medical treatment be established as much as possible prior to incapacity. The Work Group has determined that the measure should remain as specified with no required timeframe based on a review of the literature. Studies have shown that people do change their preferences often with regard to advanced care planning, but it primarily occurs after a major medical event or other health status change. In the stable patient, it would be very difficult to define the correct interval. It was felt by the Work Group that the error rate in simply not having addressed the issue at all is so much more substantial (Teno, 1997) than the risk that an established plan has become outdated that we should not define a specific timeframe at this time. As this measure is tested and reviewed, we will continue to evaluate if and when a specific timeframe should be included.

CLINICAL RECOMMENDATION STATEMENTS:
Advance directives are designed to respect patient’s autonomy and determine his/her wishes about future life-sustaining medical treatment if unable to indicate wishes. Key interventions and treatment decisions to include in advance directives are: resuscitation procedures, mechanical respiration, chemotherapy, radiation therapy, dialysis, simple diagnostic tests, pain control, blood products, transfusions, and intentional deep sedation.

Oral statements:
- Conversations with relatives, friends, and clinicians are most common form; should be thoroughly documented in medical record for later reference.
- Properly verified oral statements carry same ethical and legal weight as those recorded in writing.
Instructional advance directives (DNR orders, living wills):

- Written instructions regarding the initiation, continuation, withholding, or withdrawal of particular forms of life-sustaining medical treatment.
- May be revoked or altered at any time by the patient.
- Clinicians who comply with such directives are provided legal immunity for such actions.

Durable power of attorney for health care or health care proxy:

- A written document that enables a capable person to appoint someone else to make future medical treatment choices for him or her in the event of decisional incapacity. (AGS)

The National Hospice and Palliative Care Organization provides the Caring Connection web site, which provides resources and information on end-of-life care, including a national

**MEASURE #110 – PREVENTIVE CARE AND SCREENING: INFLUENZA IMMUNIZATION**

**RATIONALE:**
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged >=6 months who do not have contraindications. Vaccination optimally should occur before onset of influenza activity in the community. Health care providers should offer vaccination soon after vaccine becomes available (by October, if possible). Vaccination should be offered as long as influenza viruses are circulating. (CDC/ACIP, 2014)

**MEASURE #130 - DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD**

**RATIONALE:**
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), “different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient’s medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing.”

In addition, providers need to periodically review all of a patient’s medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).
Adverse drug events (ADEs) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA’s published report, The Physician’s Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on “Prevalence of Adverse Drug Events in Ambulatory Care” finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality’s (AHRQ) The National Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings as 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and gender. The disparities were identified as follows: older Asians were more likely than older whites to have inappropriate drug use (20.3% compared with 17.3%); older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted that fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks, et al found there is an opportunity for universal medication lists utilizing health IT.
CLINICAL RECOMMENDATION STATEMENTS:
The Joint Commission’s 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section “Use Medicines Safely NPSG.03.06.01” states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission’s 2015 Ambulatory Care National Patient Safety Goals).

The National Quality Forum’s 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, The Physician’s Role in Medication Reconciliation, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

MEASURE #226 - PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION
RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided
to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)
2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN CORONARY ARTERY DISEASE (CAD) MEASURES GROUP:

#6  Coronary Artery Disease (CAD): Antiplatelet Therapy
#7  Coronary Artery Disease (CAD): Beta-Blocker Therapy – Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF < 40%)
#128 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan
#130 Documentation of Current Medications in the Medical Record
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#242 Coronary Artery Disease (CAD): Symptom Management

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group specific intent G-code has been created for registry only measure groups for use by registries that utilize claims data.

G8489: I intend to report the Coronary Artery Disease (CAD) Measures Group

- Report the patient sample method:
  **20 Patient Sample Method via registries:** 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the CAD Measures Group are patients aged 18 years and older with a specific diagnosis of CAD accompanied by a specific patient encounter:

  **One of the following diagnosis codes indicating coronary artery disease:**

  Accompanied by:

  **One of the following patient encounter codes:** 99201, 99202, 99203, 99204, 99205, 99209, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

  - To satisfactorily report the CAD Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

  - Measure #7 need only be reported if the patient has one of the following diagnosis codes indicating coronary artery disease and also has Left Ventricular Systolic Dysfunction (LVEF < 40%):

AND

Left ventricular ejection fraction (LVEF) < 40% (G8694)

- Measures #7 and #242 are represented differently from the corresponding individual measure. Therefore the individual measures are specified and analyzed in a slightly different manner than the same measures contained within the measures group. Use the measure specifications as defined within the measures group for reporting purposes in order to satisfactorily report the measures group.

- Measure #128 does not need to be reported (is not applicable) if the patient is considered not eligible for BMI calculation or follow-up plan – A patient is not eligible if one or more of the following reasons are documented:
  - Patient is receiving palliative care
  - Patient is pregnant
  - Patient refuses BMI measurement (refuses height and/or weight)
  - Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
  - Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

- Instructions for qualifying numerator option reporting for each of the measures within the Coronary Artery Disease (CAD) Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  Composite QDC G8498: All quality actions for the applicable measures in the Coronary Artery Disease (CAD) Measures Group have been performed for this patient

- Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #6 (NQF 0067): Coronary Artery Disease (CAD): Antiplatelet Therapy -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease (CAD) seen within a 12 month period who were prescribed aspirin or clopidogrel

NUMERATOR:
Patients who were prescribed aspirin or clopidogrel

Definition:
Prescribed – May include prescription given to the patient for aspirin or clopidogrel at one or more visits in the measurement period OR patient already taking aspirin or clopidogrel as documented in current medication list.

Numerator Options:
Performance Met: Aspirin or clopidogrel prescribed (4086F)

OR
Medical Performance Exclusion: Documentation of medical reason(s) for not prescribing aspirin or clopidogrel (eg, allergy, intolerance, receiving other thienopyridine therapy, receiving warfarin therapy, bleeding coagulation disorders, other medical reasons) (4086F with 1P)

OR
Patient Performance Exclusion: Documentation of patient reason(s) for not prescribing aspirin or clopidogrel (eg, patient declined, other patient reasons) (4086F with 2P)

OR
System Performance Exclusion: Documentation of system reason(s) for not prescribing aspirin or clopidogrel (eg, lack of drug availability, other reasons attributable to the health care system) (4086F with 3P)

OR
Performance Not Met: Aspirin or clopidogrel was not prescribed, reason not otherwise specified (4086F with 8P)
Measure #7 (NQF 0070): Coronary Artery Disease (CAD): Beta-Blocker Therapy – Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF < 40%) – National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have a prior MI or a current or prior LVEF < 40% who were prescribed beta-blocker therapy

NUMERATOR:
Patients who were prescribed beta-blocker therapy

Definitions:
Prescribed – May include prescription given to the patient for beta-blocker therapy at one or more visits in the measurement period OR patient already taking beta-blocker therapy as documented in current medication list.

Beta-blocker Therapy –
- For patients with prior LVEF < 40%, beta-blocker therapy includes the following: bisoprolol, carvedilol, or sustained release metoprolol succinate.
- For patients with prior MI, beta-blocker therapy includes any agent within the beta-blocker drug class. As of 2014, no recommendations or evidence are cited in current stable ischemic heart disease guidelines for preferential use of specific agents

NUMERATOR NOTE: The reporting numerator options contained within this specification are represented differently than the corresponding individual measure. Reference this specification only in order to satisfactorily report the measures group.

For purposes of the Coronary Artery Disease Measures Group, history of cardiac surgery codes are not included as part of the denominator for this measure.

Numerator Options:
Performance Met: Beta-blocker therapy prescribed or currently being taken (G9189)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for not prescribing beta-blocker therapy (e.g., allergy, intolerance, other medical reasons) (G9190)

OR

Patient Performance Exclusion: Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons) (G9191)

OR

System Performance Exclusion: Documentation of system reason(s) for not prescribing beta-blocker therapy (e.g., other reasons attributable to the health care system) (G9192)

OR

Performance Not Met: Beta-blocker therapy not prescribed, reason not given (G9188)
Measure #128 (NQF 0421): Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older with a BMI documented during the current encounter or during the previous six months AND with a BMI outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter.

Normal Parameters:
- Age 65 years and older BMI ≥ 23 and < 30 kg/m²
- Age 18 – 64 years BMI ≥ 18.5 and < 25 kg/m²

NUMERATOR:
Patients with a documented BMI during the encounter or during the previous six months, AND when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter.

Numerator Instructions:
- **Height and Weight** – An eligible professional or their staff is required to measure both height and weight. Both height and weight must be measured within six months of the current encounter and may be obtained from separate encounters. Self-reported values cannot be used.
- **Follow-Up Plan** – If the most recent documented BMI is outside of normal parameters, then a follow-up plan is documented during the encounter or during the previous six months of the current encounter. The documented follow-up plan must be based on the most recent documented BMI outside of normal parameters, example: “Patient referred to nutrition counseling for BMI above normal parameters.” (See Definitions for examples of a follow-up plan treatments)
- **Performance Met for G8417 & G8418**
  - If the provider documents a BMI and a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter, the provider documents a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter AND the patient has a documented follow-up plan for a BMI outside normal parameters within the previous six months of the current visit

Definitions:
- **BMI** – Body mass index (BMI), is a number calculated using the Quetelet index: weight divided by height squared (W/H²) and is commonly used to classify weight categories. BMI can be calculated using:
  - Metric Units: BMI = Weight (kg) / (Height (m) x Height (m))
  - OR
  - English Units: BMI = Weight (lbs) / (Height (in) x Height (in)) x 703

Follow-Up Plan – Proposed outline of treatment to be conducted as a result of a BMI out of normal parameters. A follow-up plan may include but is not limited to:
- Documentation of education
- Referral (e.g., a registered dietician/nutritionist, occupational therapist, physical therapist, primary care provider, exercise physiologist, mental health professional, or surgeon)
- Pharmacological interventions
- Dietary supplements
• Exercise counseling
• Nutrition counseling

Not Eligible for BMI Calculation or Follow-Up Plan – A patient is not eligible if one or more of the following reasons are documented:
• Patient is receiving palliative care
• Patient is pregnant
• Patient refuses BMI measurement (refuses height and/or weight)
• Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
• Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

Numerator Options:

Performance Met: BMI is documented within normal parameters and no follow-up plan is required (G8420)
OR
Performance Met: BMI is documented above normal parameters and a follow-up plan is documented (G8417)
OR
Performance Met: BMI is documented below normal parameters and a follow-up plan is documented (G8418)
OR
Performance Not Met: BMI not documented and no reason is given (G8421)
OR
Performance Not Met: BMI documented outside normal parameters, no follow-up plan documented, no reason given (G8419)
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record --
National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency and route of administration

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
• Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met:
Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

OR

Other Performance Exclusion:
Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR

Performance Not Met:
Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention — National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

**NUMERATOR:**
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

**Definitions:**
- **Tobacco Use** – Includes use of any type of tobacco.
- **Tobacco Cessation Intervention** – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

**NUMERATOR NOTE:** In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

**Numerator Options:**

**Performance Met:**
- Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

**OR**
- Current tobacco non-user (1036F)

**Medical Performance Exclusion:**
- Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)

**OR**
- **Performance Not Met:**
  - Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
Measure #242: Coronary Artery Disease (CAD): Symptom Management -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease (CAD) seen within a 12 month period with results of an evaluation of level of activity and an assessment of whether anginal symptoms are present or absent with appropriate management of anginal symptoms within a 12 month period

NUMERATOR:
Patients with appropriate management of anginal symptoms within a 12 month period

Numerator Instruction: Patients with an evaluation of level of activity and an assessment of whether anginal symptoms are present or absent are included within this measure

Evaluation of level of activity and evaluation of presence or absence of angina symptoms should include:

- Documentation of Canadian Cardiovascular Society (CCS) Angina Class OR
- Completion of a disease-specific questionnaire (e.g., Seattle Angina Questionnaire or other validated questionnaire) to quantify angina and level of activity

Definitions:
Canadian Cardiovascular Society (CCS) Angina Classification-
Class 0: Asymptomatic
Class 1: Angina with strenuous exercise
Class 2: Angina with moderate exertion
Class 3: Angina with mild exertion
  1. Walking 1-2 level blocks at normal pace
  2. Climbing 1 flight of stairs at normal pace
Class 4: Angina at any level of physical exertion

Appropriate Management of Anginal Symptoms Includes the Following-
1) Absence of anginal symptoms as determined by evaluation of level of activity and symptoms.

OR

2) Presence of anginal symptoms as determined by evaluation of level of activity and symptoms and a plan of care is documented to achieve control of anginal symptoms

Documented plan of care may include:

a) 2 or more anti-anginal medications prescribed, ** OR
b) Referral for consideration for coronary revascularization, OR
c) Referral for additional evaluation or treatment of anginal symptoms

**Prescribed may include prescription given to the patient for anti-anginal medication at one or more visits in the measurement period OR patient already taking 2 or more anti-anginal medications as documented in current medication list.

NUMERATOR NOTE: The reporting numerator options contained within this specification are represented differently than the corresponding individual measure. Reference this specification only in order to satisfactorily report the measures group.
Numerator Options:

**Performance Met:**
- Severity of angina assessed by level of activity (1010F)
- Plan of care to manage anginal symptoms documented (0557F)
- Angina present (1011F)

**OR**

**Performance Met:**
- Severity of angina assessed by level of activity (1010F)
- Angina absent (1012F)

**OR**

**Medical Performance Exclusion:**
- Documentation of medical reason(s) for not providing any specified element of plan of care to achieve control of anginal symptoms (e.g., allergy, intolerance, other medical reasons) (0557F with 1P)

**OR**

**Patient Performance Exclusion:**
- Documentation of patient reason(s) for not providing any specified element of plan of care to achieve control of anginal symptoms (e.g., patient declined, other patient reasons) (0557F with 2P)

**OR**

**System Performance Exclusion:**
- Documentation of system reason(s) for not providing any specified element of plan of care to achieve control of anginal symptoms (e.g., financial reasons, other reasons attributable to the health care system) (0557F with 3P)
- Severity of angina assessed by level of activity (1010F)
- Angina present (1011F)

**OR**

**Performance Not Met:**
- Plan of care to achieve control of angina symptoms was not performed, reason not otherwise specified (0557F with 8P)
- Severity of angina assessed by level of activity (1010F)
- Angina present (1011F)

**OR**

**Performance Not Met:**
- Severity of angina not assessed, reason not otherwise specified (1010F with 8P)
CORONARY ARTERY DISEASE (CAD) MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #6 - CORONARY ARTERY DISEASE (CAD): ANTIPLATELET THERAPY
RATIONALE:
Use of antiplatelet therapy has shown to reduce the occurrence of vascular events in patients with coronary artery disease, including myocardial infarction and death.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease (SIHD)

ANTIPLATELET THERAPY
Treatment with aspirin 75 to 162 mg daily should be continued indefinitely in the absence of contraindications in patients with SIHD. (Class I Recommendation, Level of Evidence: A)

Treatment with clopidogrel is reasonable when aspirin is contraindicated in patients with SIHD. (Class I Recommendation, Level of Evidence: B)

MEASURE #7 - CORONARY ARTERY DISEASE (CAD): BETA-BLOCKER THERAPY – PRIOR MYOCARDIAL INFARCTION (MI) OR LEFT VENTRICULAR SYSTOLIC DYSFUNCTION (LVEF < 40%)
RATIONALE:
Nonadherence to cardioprotective medications is prevalent among outpatients with coronary artery disease and can be associated with a broad range of adverse outcomes, including all-cause and cardiovascular mortality, cardiovascular hospitalizations, and the need for revascularization procedures.

A patient with a diagnosis of coronary artery disease seen within a 12 month period and LVEF < 40% should be taking either bisoprolol, carvedilol, or sustained release metoprolol succinate. While all beta-blockers appear to be of equal efficacy in patients with chronic stable coronary artery disease, these three medications have specifically shown to reduce mortality in patients with reduced LVEF.

CLINICAL RECOMMENDATIONS:
Beta-blocker therapy should be started and continued for 3 years in all patients with normal LV function after MI or ACS. (Class I, Level of Evidence: B) (ACCF/AHA/ACP/AATS/PCNA/SCAI/STS, 2012)

Beta-blocker therapy should be used in all patients with LV systolic dysfunction (EF <= 40%) with heart failure or prior MI, unless contraindicated. (Use should be limited to carvedilol, metoprolol succinate, or bisoprolol, which have been shown to reduce risk of death.) (Class I, Level of Evidence: A) (ACCF/AHA/ACP/AATS/PCNA/SCAI/STS, 2012)

MEASURE #128 - PREVENTIVE CARE AND SCREENING: BODY MASS INDEX (BMI) SCREENING AND FOLLOW-UP PLAN
RATIONALE:
Normal Parameters for Age 65 Years and Older
Winter et al. (2014) performed a meta-analysis looking at the relationship between BMI and all-cause mortality among adults 65 and older. They identified a higher risk of mortality among those with a BMI <23 kg/m2 and recommended monitoring weight status in this group to address any modifiable causes of weight loss promptly with due consideration of individual comorbidities. Dahl et al. (2013) reported that old persons (70-79) who were overweight had a lower mortality risk than old persons who were of normal weight, even after controlling for weight change and multimorbidity. The study also shows that persons who increased or decreased in BMI had a greater mortality risk than those who had a stable BMI, particularly those aged 70 to 79.
Their results provide support to the belief that the World Health Organization guidelines for BMI are overly restrictive in old age.

**BMI Above Upper Parameters**

Obesity continues to be a costly public health concern in the United States. The Centers for Disease Control and Prevention (CDC, 2010) reported in 2009, no state met the Healthy People 2010 obesity target of 15 percent and the self-reported overall prevalence of obesity among adults had increased 1.1 percentage points in 2007 to 26.7 percent (2010). Ogden, Carroll, Kit and Flegal (2013) reported the prevalence of BMI-defined obesity in adults is high and continues to exceed 30% in most sex-age groups (34.9% overall). They also stated the overall prevalence of obesity did not differ between men and women in 2011–2012; however, among non-Hispanic black adults, 56.6% of women were obese compared with 37.1% of men. In addition to the continued high prevalence rate for adults in general, Flegal, Carroll & Kit (2012) report a significant increase for men and for non-Hispanic black and Mexican American women over the 12-year period from 1999 through 2010 (2012). Moyer (2012) reported: Obesity is associated with such health problems as an increased risk for coronary artery disease, type 2 diabetes, various types of cancer, gallstones and disability. These comorbid medical conditions are associated with higher use of health care services and costs among obese patients (p. 373).

Obesity is also associated with an increased risk of death, particularly in adults younger than age 65 years and has been shown to reduce life expectancy by 6 to 20 years depending on age and race (LeBlanc et al., 2011). Masters, et al. (2013) also showed mortality due to obesity varied by race and gender. They estimated adult deaths between 1986 and 2006 associated with overweight and obesity was 5.0% and 15.6% for Black and White men, and 26.8% and 21.7% for Black and White women, respectively. They also found a stronger association than previous research demonstrated between obesity and mortality risk at older ages.

Finkelstein, Trogdon, Cohen and Dietz (2009) found that in 2006, across all payers, per capita medical spending for the obese is $1,429 higher per year, (42 percent) than for someone of normal weight. Using 2008 dollars, this was estimated to be equivalent to $147 billion dollars in medical care costs related to obesity.

Padula, Allen and Nair (2014) examined data from a commercial claims and encounters database to estimate the cost for obesity and associated comorbidities among working-age adults who had a claim with a primary or secondary diagnosis of obesity in 2006-2007. The mean net expenditure for inpatient and outpatient claims was $1,907 per patient per visit. The increases in cost for comorbidities ranged from $527 for obesity with CHF to $15,733 for the combination of obesity, diabetes mellitus, hypertension and depression.

In addition to a high prevalence rate of obesity, less than 50% of obese adults in 2010 received advice to exercise or perform physical activity (Barnes & Schoenborn, 2012).

**BMI Below Normal Parameters**

In the National Center for Health Statistics (NCHS) Health E-Stat, Fryer and Ogden (2012) reported that poor nutrition or underlying health conditions can result in underweight. Results from the 2007-2010 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate an estimated 1.7% of U.S. adults are underweight with women more likely to be underweight than men (2012).

In a cohort study conducted by Borrell and Lalitha (2014), data from NHANES III (1988-1994) was linked to the National Death Index mortality file with follow-up to 2006, and showed that when compared to their normal weight counterparts (BMI 18.5-25 kg/m2), underweight (BMI <18.5 kg/m2) had significantly higher death rates (Hazard Ratio= 2.27; 95% confidence interval (CI) = 1.78, 2.90).

Ranhoff, Gjøen and Mowe (2005) recommended using BMI < 23 kg/m2 for the elderly to identify positive results with malnutrition screens and poor nutritional status.
CLINICAL RECOMMENDATION STATEMENTS:
Although multiple clinical recommendations addressing obesity have been developed by professional organizations, societies and associations, two recommendations have been identified which exemplify the intent of the measure and address the numerator and denominator.

The US Preventive Health Services Task Force (USPSTF) recommends screening all adults (aged 18 years and older) for obesity. Clinicians should offer or refer patients with a BMI of 30 or higher to intensive, multicomponent behavioral interventions. This is a B recommendation (Moyer, 2012).

As cited in Wilkinson et al. (2013), Institute for Clinical Systems Improvement (ICSI) Preventive Services for Adults, Obesity Screening (Level II) Recommendation provides the following guidance:

- Record height, weight and calculate body mass index at least annually
- Clinicians should consider waist circumference measurement to estimate disease 25 to 34.9 kg/m², sex risk for patients who have BMI scores indicative of overweight or obesity class I. For adult patients with a BMI of specific waist circumference cutoffs should be used in conjunction with BMI to identify increased disease risk.
- A BMI greater or equal to 30 is defined as obese
- A BMI of 25-29 is defined as overweight
- Intensive intervention for obese individuals, based on BMI, is recommended by the U.S. Preventive Services to help control weight.

Similarly, the 2013 joint report/guideline from the American Heart Association, American College of Cardiology and The Obesity Society also recommend measuring height and weight and calculating BMI at annual visits or more frequently, using the current cutoffs for overweight (BMI>25.0-29.9 kg/m²) and obesity (BMI ≥30 kg/m²) to identify adults who may be at elevated risk of CVD and the current cutoffs for obesity to identify adults who may be at elevated risk of mortality from all causes. They also recommend counseling overweight and obese individuals on their increased risk for CVD, type 2 diabetes, all-cause mortality and need for lifestyle changes.

MEASURE #130 - DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD
RATIONALE:
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock
et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADEs) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA’s published report, The Physician’s Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on “Prevalence of Adverse Drug Events in Ambulatory Care” finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality’s (AHRQ) The National Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings as 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and gender. The disparities were identified as follows: older Asians were more likely than older whites to have inappropriate drug use (20.3% compared with 17.3%); older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted that fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al found there is an opportunity for universal medication lists utilizing health IT.
CLINICAL RECOMMENDATION STATEMENTS:
The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, The Physician’s Role in Medication Reconciliation, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION
RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided.
to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

**MEASURE #242 - CORONARY ARTERY DISEASE (CAD): SYMPTOM MANAGEMENT**

**RATIONALE:**
In order to effectively manage the symptoms of a patient with chronic stable coronary artery disease, an assessment of those symptoms needs to be performed. This assessment is the basis of any treatment modification that needs to be made. Effective management of the symptoms associated with chronic stable coronary artery disease (eg, chest pain, shortness of breath) through medication management or referral for consideration of revascularization or other additional treatment. This may lead to improved patient quality of life, an important patient-centered outcome.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the Diagnosis and Management of Patients With Stable Ischemic Heart Disease (SIHD)

Medical Therapy for Relief of Symptoms

**USE OF ANTI-ISCHEMIC MEDICATIONS: RECOMMENDATIONS**

Beta blockers should be prescribed as initial therapy for relief of symptoms in patients with SIHD. (Class I Recommendation, Level of Evidence: B)

Calcium channel blockers or long-acting nitrates should be prescribed for relief of symptoms when beta blockers are contraindicated or cause unacceptable side effects in patients with SIHD. (Class I Recommendation, Level of Evidence: B)

Calcium channel blockers or long-acting nitrates, in combination with beta blockers, should be prescribed for relief of symptoms when initial treatment with beta blockers is unsuccessful in patients with SIHD. (Class I Recommendation, Level of Evidence: B)

Sublingual nitroglycerin or nitroglycerin spray is recommended for immediate relief of angina in patients with SIHD. (Class I Recommendation, Level of Evidence: B)
HIV/AIDS MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN HIV/AIDS MEASURES GROUP:
#47 Care Plan
#134 Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan
#160 HIV/AIDS: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis
#205 HIV/AIDS: Sexually Transmitted Disease Screening for Chlamydia, Gonorrhea, and Syphilis
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#338 HIV Viral Load Suppression
#339 Prescription of HIV Antiretroviral Therapy
#340 HIV Medical Visit Frequency

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8491: I intend to report the HIV/AIDS Measures Group

- Report the patient sample method:
  20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the HIV/AIDS Measures Group are patients aged 13 years and older with a specific diagnosis of HIV/AIDS accompanied by a specific patient encounter

One of the following diagnosis codes indicating HIV/AIDS:
ICD-10-CM: B20, Z21

Accompanied by:

One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, G0402

- To satisfactorily report the HIV/AIDS Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #47 need only be reported on patients 65 years and older.

- Measure #134 need only be reported on patients without an active diagnosis of Depression or a diagnosed Bipolar Disorder.

- Measure #226 need only be reported on patients aged 18 years and older.

- Instructions for qualifying numerator option reporting for each of the measures within the HIV/AIDS Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.
**Composite QDC G8500:** All quality actions for the applicable measures in the HIV/AIDS Measures Group have been performed for this patient

- **Measure Group Reporting Calculations:**

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #47 (NQF 0326): Care Plan -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

NUMERATOR:
Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

Numerator Instructions: If patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, report 1124F.

Definition:
Documentation that Patient did not Wish or was not able to Name a Surrogate Decision Maker or Provide an Advance Care Plan – May also include, as appropriate, the following:
- That the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship.

NUMERATOR NOTE: The CPT Category II codes used for this measure indicate: Advance Care Planning was discussed and documented. The act of using the Category II codes on a claim (or equivalent medical record documentation) indicates the provider confirmed that the Advance Care Plan was in the medical record (that is, at the point in time the code was assigned, the Advance Care Plan in the medical record was valid) or that advance care planning was discussed. The codes (or equivalent medical record documentation) are required annually to ensure that the provider either confirms annually that the plan in the medical record is still appropriate or starts a new discussion.

The provider does not need to review the Advance Care Plan annually with the patient to meet the numerator criteria; documentation of a previously developed advanced care plan that is still valid in the medical record meets numerator criteria.

Numerator Options:
Performance Met: Advance Care Planning discussed and documented; advance care plan or surrogate decision maker documented in the medical record (1123F)

OR
Performance Met: Advance Care Planning discussed and documented in the medical record; patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan (1124F)

OR
Performance Not Met: Advance care planning not documented, reason not otherwise specified (1123F with 8P)
Measure #134 (NQF 0418): Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 12 years and older screened for clinical depression on the date of the encounter using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen.

**NUMERATOR:**
Patients screened for clinical depression on the date of the encounter using an age appropriate standardized tool AND, if positive, a follow-up plan is documented on the date of the positive screen.

**Numerator Instructions:** The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record. The depression screening must be reviewed and addressed in the office of the provider filing the code on the date of the encounter.

**Definitions:**
- **Screening** – Completion of a clinical or diagnostic tool used to identify people at risk of developing or having a certain disease or condition, even in the absence of symptoms.
- **Standardized Depression Screening Tool** – A normalized and validated depression screening tool developed for the patient population in which it is being utilized. The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record.

Examples of depression screening tools include but are not limited to:
- **Adolescent Screening Tools (12-17 years)**
  - Patient Health Questionnaire for Adolescents (PHQ-A), Beck Depression Inventory-Primary Care Version (BDI-PC), Mood Feeling Questionnaire (MFQ), Center for Epidemiologic Studies Depression Scale (CES-D), and PRIME MD-PHQ2
- **Adult Screening Tools (18 years and older)**
  - Patient Health Questionnaire (PHQ-9), Beck Depression Inventory (BDI or BDI-II), Center for Epidemiologic Studies Depression Scale (CES-D), Depression Scale (DEPS), Duke Anxiety-Depression Scale (DADS), Geriatric Depression Scale (GDS), Cornell Scale Screening, and PRIME MD-PHQ2

**Follow-Up Plan** – Documented follow-up for a positive depression screening **must** include one or more of the following:
- Additional evaluation for depression
- Suicide Risk Assessment
- Referral to a practitioner who is qualified to diagnose and treat depression
- Pharmacological interventions
- Other interventions or follow-up for the diagnosis or treatment of depression

**Not Eligible** – A patient is not eligible if one or more of the following conditions are documented:
- Patient refuses to participate
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status
- Situations where the patient’s functional capacity or motivation to improve may impact the accuracy of results of standardized depression assessment tools. For example: certain court appointed cases or cases of delirium
- Patient has an active diagnosis of Depression
- Patient has a diagnosed Bipolar Disorder
**NUMERATOR NOTE:** The follow-up plan must be related to a positive depression screening, example: “Patient referred for psychiatric evaluation due to positive depression screening.”

**Numerator Options:**

**Performance Met:**

- Screening for clinical depression is documented as being positive AND a follow-up plan is documented (G8431)

**OR**

**Performance Met:**

- Screening for clinical depression is documented as negative, a follow-up plan is not required (G8510)

**OR**

**Other Performance Exclusion:**

- Screening for clinical depression not documented, documentation stating the patient is not eligible (G8433)

**OR**

**Other Performance Exclusion:**

- Screening for clinical depression documented as positive, a follow-up plan not documented, documentation stating the patient is not eligible (G8940)

**OR**

**Performance Not Met:**

- Clinical depression screening not documented, reason not given (G8432)

**OR**

**Performance Not Met:**

- Screening for clinical depression documented as positive, follow-up plan not documented, reason not given (G8511)
Measure #160 (NQF 0405): HIV/AIDS: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis --
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 6 weeks and older with a diagnosis of HIV/AIDS who were prescribed Pneumocystis
Jiroveci Pneumonia (PCP) prophylaxis

NUMERATOR:
Patients who were prescribed pneumocystis jiroveci pneumonia (PCP) prophylaxis within 3 months of CD4 count
below 200 cells/mm³

Definition:
Prescribed – May include prescription given to the patient for PCP prophylaxis therapy at one or more visits
in the 12-month period OR patient already taking PCP prophylaxis therapy as documented in current
medication list.

NUMERATOR NOTE: The reporting numerator options contained within this specification are represented
differently than the corresponding individual measure. Reference this specification only in order to
satisfactorily report the measures group.

Numerator Options:
Performance Met:
Pneumocystis jiroveci pneumonia prophylaxis
prescribed within 3 months of low CD4⁺ cell count
below 200 cells/mm³ (G9222)

AND

CD4⁺ cell count < 200 cells/mm³ (3494F)

OR

Medical Performance Exclusion:
Pneumocystis jiroveci pneumonia prophylaxis not
prescribed within 3 months of low CD4⁺ cell count
below 200 cells/mm³ for medical reason (i.e., patient’s
CD4⁺ cell count above threshold within 3 months after
CD4⁺ cell count below threshold, indicating that the
patient’s CD4⁺ levels are within an acceptable range
and the patient does not require PCP prophylaxis)
(G9219)

AND

CD4⁺ cell count < 200 cells/mm³ (3494F)

OR

Other Performance Exclusion:
CD4⁺ cell count 200 – 499 cells/mm³ (3495F)

OR

Other Performance Exclusion:
CD4⁺ cell count ≥ 500 cells/mm³ (3496F)

OR

Performance Not Met:
PCP prophylaxis was not prescribed within 3 months of
low CD4⁺ cell count below 200 cells/mm³, reason not
given (G9217)

AND

CD4⁺ cell count < 200 cells/mm³ (3494F)

OR

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**Performance Not Met:**

CD4+ cell count not performed, reason not otherwise specified (3494F with 8P)

**DESCRIPTION:**
Percentage of patients aged 13 years and older with a diagnosis of HIV/AIDS for whom chlamydia, gonorrhea, and syphilis screenings were performed at least once since the diagnosis of HIV infection

**NUMERATOR:**
Patients with chlamydia, gonorrhea, and syphilis screenings performed at least once since the diagnosis of HIV infection

**NUMERATOR NOTE:** Report G9228 when results are documented for all of the 3 screenings

**Numerator Options:**

**Performance Met:**
Chlamydia, gonorrhea, and syphilis screening results documented (report when results are present for all of the 3 screenings) (G9228)

**OR**

**Other Performance Exclusion:**
Chlamydia, gonorrhea, and syphilis screening results not documented (Patient refusal is the only allowed exclusion) (G9229)

**OR**

**Performance Not Met:**
Chlamydia, gonorrhea, and syphilis screening not documented as performed, reason not otherwise specified (G9230)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user.

Definitions:
- Tobacco Use – Includes use of any type of tobacco.
- Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
- Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)
- OR
- Performance Met: Current tobacco non-user (1036F)
- OR
- Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)
- OR
- Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
<table>
<thead>
<tr>
<th>Measure #338 (NQF 2082): HIV Viral Load Suppression -- National Quality Strategy Domain: Effective Clinical Care</th>
</tr>
</thead>
</table>
| DESCRIPTION:  
The percentage of patients, regardless of age, with a diagnosis of HIV with a HIV viral load less than 200 copies/mL at last viral load test during the measurement year |
| NUMERATOR:  
Number of patients with a HIV viral load less than 200 copies/mL at last viral load test |
| **Numerator Options:**  
**Performance Met:** Documentation of viral load less than 200 copies/mL (G9243) |
| **Performance Not Met:** Documentation of viral load equal to or greater than 200 copies/mL or viral load not performed (G9242) |
**Measure #339 (NQF 2083): Prescription of HIV Antiretroviral Therapy -- National Quality Strategy**  
**Domain: Effective Clinical Care**

**DESCRIPTION:**  
Percentage of patients, regardless of age, with a diagnosis of HIV prescribed antiretroviral therapy for the treatment of HIV infection during the measurement year.

**NUMERATOR:**  
Number of patients prescribed HIV antiretroviral therapy during the reporting period.

**Definition:**  
**Antiretroviral Therapy** - HIV antiretroviral therapy is described as the prescription of at least one U.S. Food and Drug Administration approved HIV antiretroviral medication.

**Numerator Options:**

**Performance Met:**

Antiretroviral therapy prescribed (G9245)

**Performance Not Met:**

Antiretroviral therapy not prescribed (G9244)
Measure #340 (NQF 2079): HIV Medical Visit Frequency -- National Quality Strategy Domain: Efficiency And Cost Reduction

DESCRIPTION:
Percentage of patients, regardless of age with a diagnosis of HIV who had at least one medical visit in each 6 month period of the 24 month measurement period, with a minimum of 60 days between medical visits.

NUMERATOR:
Number of patients who had at least one medical visit in each 6 month period of the 24 month measurement period, with a minimum of 60 days between medical visits.

Numerator Options:
- **Performance Met:** Patient had at least one medical visit in each 6 month period of the 24 month measurement period, with a minimum of 60 days between medical visits (G9247)

OR

- **Performance Not Met:** Patient did not have at least one medical visit in each 6 month period of the 24 month measurement period, with a minimum of 60 days between medical visits (G9246)
HIV/AIDS MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #47- CARE PLAN

RATIONALE:
It is essential that the patient's wishes regarding medical treatment be established as much as possible prior to incapacity. The Work Group has determined that the measure should remain as specified with no required timeframe based on a review of the literature. Studies have shown that people do change their preferences often with regard to advanced care planning, but it primarily occurs after a major medical event or other health status change. In the stable patient, it would be very difficult to define the correct interval. It was felt by the Work Group that the error rate in simply not having addressed the issue at all is so much more substantial (Teno, 1997) than the risk that an established plan has become outdated that we should not define a specific timeframe at this time. As this measure is tested and reviewed, we will continue to evaluate if and when a specific timeframe should be included.

CLINICAL RECOMMENDATION STATEMENTS:

Advance directives are designed to respect patient’s autonomy and determine his/her wishes about future life-sustaining medical treatment if unable to indicate wishes. Key interventions and treatment decisions to include in advance directives are: resuscitation procedures, mechanical respiration, chemotherapy, radiation therapy, dialysis, simple diagnostic tests, pain control, blood products, transfusions, and intentional deep sedation.

Oral statements

- Conversations with relatives, friends, and clinicians are most common form; should be thoroughly documented in medical record for later reference.
- Properly verified oral statements carry same ethical and legal weight as those recorded in writing.

Instructional advance directives (DNR orders, living wills)

- Written instructions regarding the initiation, continuation, withholding, or withdrawal of particular forms of life-sustaining medical treatment.
- May be revoked or altered at any time by the patient.
- Clinicians who comply with such directives are provided legal immunity for such actions.

Durable power of attorney for health care or health care proxy

- A written document that enables a capable person to appoint someone else to make future medical treatment choices for him or her in the event of decisional incapacity. (AGS)

The National Hospice and Palliative Care Organization provides the Caring Connection web site, which provides resources and information on end-of-life care, including a national repository of state-by-state advance directives.

MEASURE #134 - PREVENTIVE CARE AND SCREENING: SCREENING FOR CLINICAL DEPRESSION AND FOLLOW-UP PLAN

RATIONALE:
The World Health Organization (WHO), as seen in Pratt & Brody (2008), found that major depression was the leading cause of disability worldwide. Depression causes suffering, decreases quality of life, and causes impairment in social and occupational functioning. It is associated with increased health care costs as well as with higher rates of many chronic medical conditions. Studies have shown that a higher number of depression symptoms are associated with poor health and impaired functioning, whether or not the criteria for a diagnosis of major depression are met. Persons 40-59 years of age had higher rates of depression than any other age group. Persons 12-17, 18-39 and 60 years of age and older had similar rates of depression. Depression was more common in females than in males. Non-Hispanic black persons had higher rates of depression than non-Hispanic white persons. In the 18-39 and 40-59 age groups, those with income below the federal poverty level had higher rates of depression than those with higher
income. Among persons 12-17 and 60 years of age and older, raters of depression did not vary significantly by poverty status.

Overall, approximately 80% of persons with depression reported some level of difficulty in functioning because of their depressive symptoms. In addition, 35% of males and 22% of females with depression reported that their depressive symptoms make it very or extremely difficult for them to work, get things done at home, or get along with other people. More than one-half of all persons with mild depressive symptoms also reported some difficulty in daily functioning attributable to their symptoms.

15–20 percent of adults older than age 65 in the United States have experienced depression (Geriatric Mental Health Foundation, 2008). 7 million adults aged 65 years and older are affected by depression (Steinman, 2007). Chronically ill Medicare beneficiaries with accompanying depression have significantly higher health care costs than those with chronic diseases alone (Unützer, 2009). People aged 65 years and older accounted for 16 percent of suicide deaths in 2004 (Centers for Disease Control and Prevention, 2007).

The negative outcomes associated with early onset depression, make it crucial to identify and treat depression in its early stages. As reported in Borner (2010), a study conducted by the World Health Organization (WHO) concluded that in North America, primary care and family physicians are likely to provide the first line of treatment for depressive disorders. Others consistently report a 10% prevalence rate of depression in primary care patients. But studies have shown that primary care physicians fail to recognize up to 50% of depressed patients, purportedly because of time constraints and a lack of brief, sensitive, easy-to-administer psychiatric screening instruments. Coyle et al. (2003), suggested that the picture is more grim for adolescents, and that more than 70% of children and adolescents suffering from serious mood disorders go unrecognized or inadequately treated. Healthy People 2020 recommends routine screening for mental health problems as a part of primary care for both children and adults (U.S. Department of Health and Human Services, 2014).

Major depressive disorder (MDD) is a debilitating condition that has been increasingly recognized among youth, particularly adolescents. The prevalence of current or recent depression among children is 3% and among adolescents is 6%. The lifetime prevalence of MDD among adolescents may be as high as 20%. Adolescent-onset MDD is associated with an increased risk of death by suicide, suicide attempts, and recurrence of major depression by young adulthood. MDD is also associated with early pregnancy, decreased school performance, and impaired work, social, and family functioning during young adulthood (Williams et al., 2009). Every fifth adolescent may have a history of depression by age 18. The increase in the onset of depression occurs around puberty. According to Zalsman et al., (2006) as reported in Borner et al. (2010), depression ranks among the most commonly reported mental health problems in adolescent girls.

The economic burden of depression is substantial for individuals as well as society. Costs to an individual may include suffering, possible side effects from treatment, fees for mental health and medical visits and medications, time away from work and lost wages, transportation, and reduced quality of personal relationships. Costs to society may include loss of life, reduced productivity (because of both diminished capacity while at work and absenteeism from work), and increased costs of mental health and medical care. In 2000, the United States spent an estimated $83.1 billion in direct and indirect costs of depression (USPSTF, 2009).

**CLINICAL RECOMMENDATION STATEMENTS:**

**Adolescent Recommendation (12-18 years)**

The USPSTF recommends screening of adolescents (12-18 years of age) for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up (AHRQ, 2010, p.141).

Clinicians and health care systems should try to consistently screen adolescents ages 12-18 for major depressive disorder, but only when systems are in place to ensure accurate diagnosis, careful selection of treatment, and close follow-up (ICSI, 2013, p.16).
Adult Recommendation (18 years and older)
The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up (AHRQ, 2010, p.136).

A system that has embedded the elements of best practice and has capacity to effectively manage the volume should consider routine screening of all patients, based on the recommendations of the U.S. Preventive Services Task Force (ICSI, 2013, p.7). Clinicians should use a standardized instrument to screen for depression if it is suspected based on risk factors or presentation. Clinicians should assess and treat for depression in patients with some comorbidities. Clinicians should acknowledge the impact of culture and cultural differences on physician and mental health. Clinicians should screen and monitor depression in pregnant and post-partum women (ICSI, 2013, p.4).

**MEASURE #160 - HIV/AIDS: PNEUMOCYSTIS JIROVECI PNEUMONIA (PCP) PROPHYLAXIS**

**RATIONALE:**
Although advances in the management of HIV and AIDS diseases have been made, Pneumocystis carinii pneumonia (PCP) remains an important complication and cause of morbidity. Without PCP prophylaxis, patients with HIV/AIDS are at increased risk of developing PCP, especially when CD4 cell counts fall 200mm3-250mm3 (Kaplan, 1998; Phair, 1990). PCP prophylaxis is very effective and has been demonstrated to prolong life.

Data from Kaiser Permanente suggests that a gap exists between what is recommended for patients with HIV infection, and what is actually performed. According to 2005-2006 data from Kaiser Permanente California (both Northern and Southern), Georgia, and Oregon, only 71% of HIV-infected persons with a CD4<200mm3 received PCP prophylaxis (personal communication, 2007).

**CLINICAL RECOMMENDATION STATEMENTS:**
HIV-infected adults and adolescents, including pregnant women and those on HAART, should receive chemoprophylaxis against PCP if they have a CD4+T lymphocyte count of <200/mL or a history of oropharyngeal candidiasis. (USPH/IDSA, 2002)

**MEASURE #205 - HIV/AIDS: SEXUALLY TRANSMITTED DISEASE SCREENING FOR CHLAMYDIA, GONORRHEA, AND SYPHILIS**

**RATIONALE:**
Sexually transmitted diseases that cause mucosal inflammation (such as gonorrhea and chlamydia) increase the risk for HIV-infection (as these diseases and other sexually transmitted diseases can increase the infectiousness of and a person’s susceptibility to HIV) (Galvin, 2004).

**CLINICAL RECOMMENDATION STATEMENTS:**
All patients should be screened with laboratory tests for STDs at the initial encounter (A-II for syphilis, for trichomoniiasis in women, and for chlamydial infection in women aged less than 25 years; B-II for gonorrhea and chlamydial infection in all men and women), and thereafter, depending on reported high-risk behavior, the presence of other STDs, and the prevalence of STDs in the community (B-III). (Aberg, 2004)

Consideration should be given to screening all HIV-infected men and women for gonorrhea and chlamydial infections. However, because of the cost of screening and the variability of prevalence of these infections, decisions about routine screening for these infections should be based on epidemiologic factors (including prevalence of infection in the community or the population being served), availability of tests, and cost. (Some HIV specialists also recommend type-specific serologic testing for herpes simplex virus type 2 for both men and women.) (B-II, for identifying STDs) (CDC, HRSA, NIH, HIVMA of IDSA, 2003)
MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSENTION INTERVENTION

RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #338 - HIV VIRAL LOAD SUPPRESSION

RATIONALE:
Sustained viral load suppression is directly related to reduction in disease progression and to reduction in potential for transmission of infection. Among persons in care, sustained viral load suppression represents the cumulative effect of prescribed therapy, ongoing monitoring, and patient adherence. The measure will direct providers’ attention and quality improvement efforts towards this important outcome.

CLINICAL RECOMMENDATION STATEMENTS:
Plasma HIV RNA (viral load) should be measured in all patients at baseline and on a regular basis thereafter, especially in patients who are on treatment, because viral load is the most important indicator of response to antiretroviral therapy (ART) (Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents PDF Sections E-1 and C-3. Accessed May 18, 2015) (Strength of Evidence = AI, AIII, BIII). Thus, viral load testing serves as a surrogate marker for treatment response and can be useful in predicting clinical progression (Murray, 1999)
Optimal viral suppression is generally defined as a viral load persistently below the level of detection (<20–75 copies/mL, depending on the assay used). In addition, low-level positive viral load results (typically <200 copies/mL) appear to be more common with some viral load assays than others, and there is no definitive evidence that patients with viral loads quantified as <200 copies/mL using these assays are at increased risk for virologic failure. For the purposes of clinical trials the AIDS Clinical Trials Group (ACTG) currently defines virologic failure as a confirmed viral load >200 copies/mL, which eliminates most cases of apparent viremia caused by blips or assay variability. Effective treatment reduces HIV-associated morbidity and mortality and reduces transmission of HIV (Mocroft, 1998; Palella, 1998; Vittinghoff, 1999; ART CC AC, 2008; MOferson, 1999; Wood, 2009; Quinn, 2000; Dieffenbach, 2009; Montaner, 2006; Cohen, 2011). The mechanism for the impact of treatment is viral load suppression.

Multiple studies demonstrate that viral load suppression is associated with slowing disease progression. Analysis of 18 trials that included more than 5,000 participants with viral load monitoring showed a significant association between a decrease in plasma viremia and improved clinical outcome (Murray, 1999). Viral load testing serves as a surrogate marker for treatment response and can be useful in predicting clinical progression (Hughes, 1997; Marschner, 1998; Thiebaut, 2000). As a result, the Department of Health and Human Services (HHS) Guidelines include a recommendation for measuring viral load at baseline and on a regular basis because viral load is the most important predictor of response to therapy (Strength of Evidence = Al, All, Bl). This recommendation is graded Al. The review of the evidence focuses on the evidence for the treatment and prevention recommendations.

The U.S. Department of Health and Human Services Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents recommends antiretroviral therapy for all HIV-infected individuals to reduce the risk of disease progression (Strength of Evidence = Al, All, and Bl) and well as to prevention transmission of HIV (Strength of Evidence = Al and All). These guidelines also recommended the frequency at which viral load testing is to be performed (Strength of Evidence = Al, All, Bl) (Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents PDF Sections E-1 and C-3. Accessed May 18, 2015).

MEASURE #339 - PRESCRIPTION OF HIV ANTIRETROVIRAL THERAPY
RATIONAL:
The primary goal of antiretroviral therapy (ART) is to reduce HIV-associated morbidity and mortality and reduce transmission (Mocroft, 1998; Palella, 1998; Vittinghoff, 1999; ART CC AC, 2008; MOferson, 1999; Wood, 2009; Quinn, 2000; Dieffenbach, 2009; Montaner, 2006; Cohen, 2011). This is best accomplished by using antiretroviral therapy to maximally inhibit HIV replication, as measured by consistent plasma HIV RNA (viral load) values below the level of detection using commercially available assays. Measure reflects important aspect of care that significantly impacts survival, mortality and hinders transmission.

CLINICAL RECOMMENDATION STATEMENTS:
The U.S. Department of Health and Human Services Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents recommends antiretroviral therapy for all HIV-infected individuals to reduce the risk of disease progression and well as to prevention transmission of HIV. These guidelines also recommended the frequency at which viral load testing is to be performed (Strength of Evidence = Al, All, Bl) (Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents PDF Sections E-1 and C-3. Accessed May 18, 2015).

Antiretroviral therapy (ART) reduces HIV-associated morbidity and mortality by maximally inhibiting HIV replication (as defined by achieving and maintaining plasma HIV RNA (viral load) below levels detectable by commercially available assays). Durable viral suppression improves immune function and quality of life, lowers the risk of both AIDS-defining and non-AIDS-defining complications, and prolongs life (HIV Trialist' Collaborative Group, 1999; Hammer, 1997; Zolopa, 2009; Mocroft, 1998; Hogg, 2001; Sterne, 2009; Baker, 2008; Palella, 2003; Cain, 2011; Severe, 2010; Kitahata, 2009; Writing Committee of the CASCADE Collaborative, 2011). Emerging evidence also suggests that additional benefits of ART-induced viral load suppression include a reduction in HIV-associated inflammation and possibly its associated complications (Atta, 2006; Schwartz, 2005; Kalayan, 2008; Calmy, 2009; Kuller, 2008; Torrani, 2008).
Measures of viral replication are known to predict HIV disease progression. Among untreated HIV-infected individuals, time to clinical progression and mortality is fastest in those with greater viral loads (Mellors, 1996). This finding is confirmed across the wide spectrum of HIV-infected patient populations such as injection drug users (IDUs), women, and individuals with hemophilia (Vlahov, 1998; Anastos, 1999; O’Brien, 1996). Several studies have shown the prognostic value of pretherapy viral load for predicting post-therapy response (Egger, 2002; Anastos, 2004). Once therapy has been initiated, failure to achieve viral suppression and viral load at the time of treatment failure is predictive of clinical disease progression (O’Brien, 1996; Hughes, 1997; Chene, 2003; Deeks, 2009).

ART has also been shown to reduce transmission of HIV and increases the length of survival. The risk of sexual HIV transmission is highly correlated with HIV viral load in the blood and genital secretions of the infected individual, and ART reduces HIV blood viral load as well as HIV viral shedding in potentially infectious body fluids including semen, cervicovaginal secretions, and anorectal secretions (Quinn, 2000; Chakraborty, 2001; Baeten, 2011; Gulick, 1997; Zhang, 1998; Vernazza, 2000; Cu-Uvin, 2000; Kotler, 1998).

MEASURE #340 - HIV MEDICAL VISIT FREQUENCY
RATIONALE:
Early linkage to, and long-term retention in HIV care leads to better health outcomes. Linkage to HIV medical care shortly after HIV diagnosis and continuous care thereafter provide opportunities for risk reduction counseling, initiation of treatment, and other strategies that improve individual health and prevent onward transmission of infection (Giordano, 2007; Cohen, 2011; Giordano, 2003; Lucas, 1999; Metsch, 2008; Montaner, 2010). Delayed linkage and poor retention in care are associated with delayed receipt of antiretroviral treatment, higher rate of virologic failure, and increased morbidity and mortality (Metscher, 2008; Montaner, 2010; Ulett, 2009).

Poor retention in care during the first year of outpatient medical care is associated with delayed or failed receipt of antiretroviral therapy, delayed time to virologic suppression and greater cumulative HIV burden, increased sexual risk transmission behaviors, increased risk of long-term adverse clinical events, and low adherence to antiretroviral therapy (Giordano, 2007; Metsch, 2008; Ulett, 2009; Mugavero, 2009). Early retention in HIV care has been found to be associated with time to viral load suppression and 2-year cumulative viral load burden among patients newly initiating HIV medical care (Mugavero, 2012). In this study, each “no show” clinic visit conveyed a 17% increased risk of delayed viral load suppression. A dose- response relationship has been shown between constancy of visits during the first year (i.e. having an HIV primary care visit in each 3-month quarter) and survival (Mugavero, 2009). Another study examining care over a two year period has found that mean increase from baseline CD4 counts was significantly greater among those with optimal retention (visits in all 4 six-month intervals) than among those with sub-optimal retention, and that mortality was higher among those with suboptimal retention (Tripathi, 2011).

In an analysis of 9 years (January 1, 2001 through December 31, 2009) of outpatient HIV care utilization from 17, 425 HIV infected adults enrolled in the HIV Research Network (HIVRN), a consortium of HIV care clinics, Yehia et al. found that 7179 (41.6%) individuals never experienced an interval between outpatient visits longer than 6 months (no gap), 5426 (31.1%) had one or more 7–12-month gaps in care, and 4820 (27.7%) had one or more gaps of longer than 12 months.

CLINICAL RECOMMENDATION STATEMENTS:
Department of Health and Human Service (HHS) guidelines make recommendations regarding the types and frequency of screenings, laboratory testing, and counseling that should be provided to people living with HIV. Screening, testing, and counseling are delivered through comprehensive HIV medical care visits. The frequency of the medical visit are related to the individual patient’s health status and attainment of health outcomes. Based on the frequency of screenings, testing, and counseling, HIV medical visits should occur every six months. (Strength of Evidence = A1, A1I, B1II) (Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents PDF Sections E-1 and C-3. Accessed May 18, 2015)
ASTHMA MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN ASTHMA MEASURES GROUP:

#53 Asthma: Pharmacologic Therapy for Persistent Asthma – Ambulatory Care Setting
#110 Preventive Care and Screening: Influenza Immunization
#128 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan
#130 Documentation of Current Medications in the Medical Record
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#402 Tobacco Use and Help with Quitting Among Adolescents

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

  G8645: I intend to report the Asthma Measures Group

- Report the patient sample method:

  20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Asthma Measures Group are patients aged 5 years and older with a specific diagnosis of asthma accompanied by a specific patient encounter:

  One of the following diagnosis codes indicating asthma:

  **ICD-10-CM:** J45.20, J45.21, J45.22, J45.30, J45.31, J45.32, J45.40, J45.41, J45.42, J45.50, J45.51, J45.52, J45.901, J45.902, J45.909, J45.990, J45.991, J45.998

  Accompanied by:

  One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341

  To satisfactorily report the Asthma Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2015-2016 influenza season OR between October and December for the 2016-2017 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate.

- Measures #128, #130, and #226 need only be reported on patients 18 years and older.

- Measure #128 does not need to be reported (is not applicable) if the patient is considered not eligible for BMI calculation or follow-up plan – A patient is not eligible if one or more of the following reasons are documented:

  - Patient is receiving palliative care
  - Patient is pregnant
- Patient refuses BMI measurement (refuses height and/or weight)
- Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
- Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

- Measure #402 need only be reported on patients 12-20 years of age.

- Instructions for qualifying numerator option reporting for each of the measures within the Asthma Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  **Composite QDC G8646:** All quality actions for the applicable measures in the Asthma Measures Group have been performed for this patient

- Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #53 (NQF 0047): Asthma: Pharmacologic Therapy for Persistent Asthma -- Ambulatory Care Setting -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 5 years and older with a diagnosis of persistent asthma who were prescribed long-term control medication

NUMERATOR:
Patients who were prescribed long-term control medication

Numerator Instructions: Documentation of persistent asthma must be present. One method of identifying persistent asthma is, at a minimum, daily use of short-acting bronchodilators

Definition:
Long-Term Control Medication Includes - Patients prescribed inhaled corticosteroids (the preferred long-term control medication at any step of asthma pharmacological therapy).

OR
Patients prescribed alternative long-term control medications (inhaled steroid combinations, anti-asthmatic combinations, antibody inhibitor, leukotriene modifiers, mast cell stabilizers, methylxanthines) OR an acceptable alternative long-term control medication at one or more visits in the 12-month period OR patient already taking inhaled corticosteroid OR an acceptable alternative long-term control medication as documented in current medication list.

Numerator Options:

Performance Met: Persistent asthma (mild, moderate or severe) (1038F) AND Inhaled corticosteroids prescribed (4140F) OR Alternative long-term control medication prescribed (4144F) OR

Patient Performance Exclusion: Documentation of patient reason(s) for not prescribing inhaled corticosteroids or alternative long-term control medication (eg, patient declined, other patient reason) (4140F with 2P) AND Persistent asthma (mild, moderate or severe) (1038F) OR

Other Performance Exclusion: Intermittent asthma (1039F) OR

Performance Not Met: Inhaled corticosteroids or alternative long-term control medication not prescribed, reason not otherwise specified (4140F with 8P) AND Persistent asthma (mild, moderate or severe) (1038F)
Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization – National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

**NUMERATOR:**
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

**Numerator Instructions:**
- If reporting this measure between January 1, 2016 and March 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2015 or January, February, and March of 2016 for the flu season ending March 31, 2016.
- If reporting this measure between October 1, 2016 and December 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2016 for the flu season ending March 31, 2017.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2015-2016 flu season OR 2016-2017 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, G8482 should be reported.

**Definition:**
**Previous Receipt** - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

**NUMERATOR NOTE:** The numerator for this measure can be met by reporting either administration of an influenza vaccination or that the patient reported previous receipt of the current season’s influenza immunization. If the performance of the numerator is not met, a clinician can report a valid performance exclusion for having not administered an influenza vaccination. For clinicians reporting a performance exclusion for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

**Numerator Options:**
**Performance Met:** Influenza immunization administered or previously received (G8482)

**OR**

**Other Performance Exclusion:** Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) (G8483)

**OR**

**Performance Not Met:** Influenza immunization was not administered, reason not given (G8484)
Measure #128 (NQF 0421): Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older with a BMI documented during the current encounter or during the previous six months AND with a BMI outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter

Normal Parameters:
- Age 65 years and older BMI ≥ 23 and < 30 kg/m²
- Age 18 – 64 years BMI ≥ 18.5 and < 25 kg/m²

NUMERATOR:
Patients with a documented BMI during the encounter or during the previous six months, AND when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter

Numerator Instructions:
- Height and Weight – An eligible professional or their staff is required to measure both height and weight. Both height and weight must be measured within six months of the current encounter and may be obtained from separate encounters. Self-reported values cannot be used.
- Follow-Up Plan – If the most recent documented BMI is outside of normal parameters, then a follow-up plan is documented during the encounter or during the previous six months of the current encounter. The documented follow-up plan must be based on the most recent documented BMI outside of normal parameters, example: “Patient referred to nutrition counseling for BMI above normal parameters.” (See Definitions for examples of a follow-up plan treatments)
- Performance Met for G8417 & G8418
  - If the provider documents a BMI and a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter, the provider documents a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter AND the patient has a documented follow-up plan for a BMI outside normal parameters within the previous six months of the current encounter

Definitions:
BMI – Body mass index (BMI), is a number calculated using the Quetelet index: weight divided by height squared (W/H²) and is commonly used to classify weight categories. BMI can be calculated using:

Metric Units: $BMI = \frac{\text{Weight (kg)}}{\text{Height (m)} \times \text{Height (m)}}$

OR

English Units: $BMI = \frac{\text{Weight (lbs)}}{\text{Height (in)} \times \text{Height (in)}} \times 703$

Follow-Up Plan – Proposed outline of treatment to be conducted as a result of a BMI out of normal parameters. A follow-up plan may include but is not limited to:
- Documentation of education
- Referral (e.g., a registered dietitian/nutritionist, occupational therapist, physical therapist, primary care provider, exercise physiologist, mental health professional, or surgeon)
- Pharmacological interventions
- Dietary supplements
• Exercise counseling
• Nutrition counseling

Not Eligible for BMI Calculation or Follow-Up Plan – A patient is not eligible if one or more of the following reasons are documented:
• Patient is receiving palliative care
• Patient is pregnant
• Patient refuses BMI measurement (refuses height and/or weight)
• Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
• Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

Numerator Options:
Performance Met: BMI is documented within normal parameters and no follow-up plan is required (G8420)
OR
Performance Met: BMI is documented above normal parameters and a follow-up plan is documented (G8417)
OR
Performance Met: BMI is documented below normal parameters and a follow-up plan is documented (G8418)
OR
Performance Not Met: BMI not documented and no reason is given (G8421)
OR
Performance Not Met: BMI documented outside normal parameters, no follow-up plan documented, no reason given (G8419)
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record –
National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
• Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met: Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

OR
Other Performance Exclusion: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR
Performance Not Met: Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

**NUMERATOR:**
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user.

**Definitions:**
- **Tobacco Use** – Includes use of any type of tobacco.
- **Tobacco Cessation Intervention** – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

**NUMERATOR NOTE:** In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

**Numerator Options:**
- **Performance Met:**
  - Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)
- **OR**
  - **Performance Met:** Current tobacco non-user (1036F)
- **OR**
  - **Medical Performance Exclusion:** Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)
- **OR**
  - **Performance Not Met:** Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
Measure #402: Tobacco Use and Help with Quitting Among Adolescents -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
The percentage of adolescents 12 to 20 years of age with a primary care visit during the measurement year for whom tobacco use status was documented and received help with quitting if identified as a tobacco user.

NUMERATOR:
Patients who were screened for tobacco use at least once within 18 months (during the measurement period or the six months prior to the measurement period) AND who received tobacco cessation counseling intervention if identified as a tobacco user.

Definitions:
- Tobacco Use Status – Any documentation of smoking or tobacco use status, including ‘never’ or ‘non-use’.
- Tobacco User – Any documentation of active or current use of tobacco products, including smoking.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation counseling report G9460.

Numerator Options:
- Performance Met:
  Patient documented as tobacco user AND received tobacco cessation intervention (must include at least one of the following: advice given to quit smoking or tobacco use, counseling on the benefits of quitting smoking or tobacco use, assistance with or referral to external smoking or tobacco cessation support programs, or current enrollment in smoking or tobacco use cessation program) if identified as a tobacco user (G9458)

- OR
  Performance Met:
  Currently a tobacco non-user (G9459)

- OR
  Performance Not Met:
  Tobacco assessment OR tobacco cessation intervention not performed, reason not given (G9460)
ASTHMA MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #53 - ASTHMA: PHARMACOLOGIC THERAPY FOR PERSISTENT ASTHMA – AMBULATORY CARE SETTING
RATIONALE:
The following statement is quoted verbatim from the NHLBI/NAEPP guideline (NHLBI, 2007):

“The broad action of ICS on the inflammatory process may account for their efficacy as preventive therapy. Their clinical effects include reduction in severity of symptoms; improvement in asthma control and quality of life; improvement in PEF and spirometry; diminished airway hyper-responsiveness; prevention of exacerbations; reduction in systemic corticosteroid courses; emergency department (ED) care; hospitalizations, and deaths due to asthma; and possibly the attenuation of loss of lung function in adults” (Rafferty P 1985; Hahtela T 1991; Jeffery PK 1992; Van Essens-Zandvliet EE 1992; Barnes NC 1993; Fabbri L 1993; Gustafsson P 1993; Kamada AK 1996; Sissa S 2000; Pauwels RA 2003; Barnes PJ October 1992)

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

The Expert Panel recommends that long-term control medications be taken daily on a long-term basis to achieve and maintain control of persistent asthma. The most effective long-term control medications are those that attenuate the underlying inflammation characteristic of asthma. (Evidence A) (NHLBI, 2007)

The Expert Panel concludes that ICS is the most potent and clinically effective long-term control medication for asthma. (Evidence A) (NHLBI, 2007)

The Expert Panel concludes that ICS is the most effective long-term therapy available for patients who have persistent asthma, and, in general, ICS is well tolerated and safe at the recommended dosages. (Evidence A) (NHLBI, 2007)

MEASURE #110 - PREVENTIVE CARE AND SCREENING: INFLUENZA IMMUNIZATION
RATIONALE:
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged >=6 months who do not have contraindications. Vaccination optimally should occur before onset of influenza activity in the community. Health care providers should offer vaccination soon after vaccine becomes available (by October, if possible). Vaccination should be offered as long as influenza viruses are circulating. (CDC/ACIP, 2014)

MEASURE #128 - PREVENTIVE CARE AND SCREENING: BODY MASS INDEX (BMI) SCREENING AND FOLLOW-UP PLAN
RATIONALE:
Normal Parameters for Age 65 Years and Older
Winter et al. (2014) performed a meta-analysis looking at the relationship between BMI and all-cause mortality among adults 65 and older. They identified a higher risk of mortality among those with a BMI <23 kg/m2 and recommended monitoring weight status in this group to address any modifiable causes of weight loss promptly with due consideration of individual comorbidities. Dahl et al. (2013) reported that old persons (70-79) who were overweight had a lower mortality risk than old persons who were of normal weight, even after controlling for weight change and multimorbidity. The study also shows that persons who increased or decreased in BMI had a greater
mortality risk than those who had a stable BMI, particularly those aged 70 to 79. Their results provide support to the belief that the World Health Organization guidelines for BMI are overly restrictive in old age.

**BMI Above Upper Parameters**

Obesity continues to be a costly public health concern in the United States. The Centers for Disease Control and Prevention (CDC, 2010) reported in 2009, no state met the Healthy People 2010 obesity target of 15 percent and the self-reported overall prevalence of obesity among adults had increased 1.1 percentage points in 2007 to 26.7 percent (2010). Ogden, Carroll, Kit and Flegal (2013) reported the prevalence of BMI-defined obesity in adults is high and continues to exceed 30% in most sex-age groups (34.9% overall). They also stated the overall prevalence of obesity did not differ between men and women in 2011–2012; however, among non-Hispanic black adults, 56.6% of women were obese compared with 37.1% of men. In addition to the continued high prevalence rate for adults in general, Flegal, Carroll & Kit (2012) report a significant increase for men and for non-Hispanic black and Mexican American women over the 12-year period from 1999 through 2010 (2012). Moyer (2012) reported: Obesity is associated with such health problems as an increased risk for coronary artery disease, type 2 diabetes, various types of cancer, gallstones and disability. These comorbid medical conditions are associated with higher use of health care services and costs among obese patients (p. 373).

Obesity is also associated with an increased risk of death, particularly in adults younger than age 65 years and has been shown to reduce life expectancy by 6 to 20 years depending on age and race (LeBlanc et al., 2011). Masters, et al. (2013) also showed mortality due to obesity varied by race and gender. They estimated adult deaths between 1986 and 2006 associated with overweight and obesity was 5.0% and 15.6% for Black and White men, and 26.8% and 21.7% for Black and White women, respectively. They also found a stronger association than previous research demonstrated between obesity and mortality risk at older ages.

Finkelstein, Trogdon, Cohen and Dietz (2009) found that in 2006, across all payers, per capita medical spending for the obese is $1,429 higher per year, (42 percent) than for someone of normal weight. Using 2008 dollars, this was estimated to be equivalent to $147 billion dollars in medical care costs related to obesity.

Padula, Allen and Nair (2014) examined data from a commercial claims and encounters database to estimate the cost for obesity and associated comorbidities among working-age adults who had a claim with a primary or secondary diagnosis of obesity in 2006-2007. The mean net expenditure for inpatient and outpatient claims was $1,907 per patient per visit. The increases in cost for comorbidities ranged from $527 for obesity with CHF to $15,733 for the combination of obesity, diabetes mellitus, hypertension and depression.

In addition to a high prevalence rate of obesity, less than 50% of obese adults in 2010 received advice to exercise or perform physical activity (Barnes & Schoenborn, 2012).

**BMI Below Normal Parameters**

In the National Center for Health Statistics (NCHS) Health E-Stat, Fryer and Ogden (2012) reported that poor nutrition or underlying health conditions can result in underweight. Results from the 2007-2010 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate an estimated 1.7% of U.S. adults are underweight with women more likely to be underweight than men (2012).

In a cohort study conducted by Borrell and Lalitha (2014), data from NHANES III (1988-1994) was linked to the National Death Index mortality file with follow-up to 2006, and showed that when compared to their normal weight counterparts (BMI 18.5-25 kg/m2), underweight (BMI <18.5 kg/m2) had significantly higher death rates (Hazard Ratio= 2.27; 95% confidence interval (CI) = 1.78, 2.90).

Ranhoff, Gjoen and Mowe (2005) recommended using BMI < 23 kg/m2 for the elderly to identify positive results with malnutrition screens and poor nutritional status.
CLINICAL RECOMMENDATION STATEMENTS:
Although multiple clinical recommendations addressing obesity have been developed by professional organizations, societies and associations, two recommendations have been identified which exemplify the intent of the measure and address the numerator and denominator.

The US Preventive Health Services Task Force (USPSTF) recommends screening all adults (aged 18 years and older) for obesity. Clinicians should offer or refer patients with a BMI of 30 or higher to intensive, multicomponent behavioral interventions. This is a B recommendation (Moyer, 2012).

As cited in Wilkinson et al. (2013), Institute for Clinical Systems Improvement (ICSI) Preventive Services for Adults, Obesity Screening (Level II) Recommendation provides the following guidance:

- Record height, weight and calculate body mass index at least annually
- Clinicians should consider waist circumference measurement to estimate disease 25 to 34.9 kg/m2, sex risk for patients who have BMI scores indicative of overweight or obesity class I. For adult patients with a BMI of specific waist circumference cutoffs should be used in conjunction with BMI to identify increased disease risk.
- A BMI greater or equal to 30 is defined as obese
- A BMI of 25-29 is defined as overweight
- Intensive intervention for obese individuals, based on BMI, is recommended by the U.S. Preventive Services to help control weight.

Similarly, the 2013 joint report/guideline from the American Heart Association, American College of Cardiology and The Obesity Society also recommend measuring height and weight and calculating BMI at annual visits or more frequently, using the current cutpoints for overweight (BMI>25.0-29.9 kg/m2) and obesity (BMI ≥30 kg/m2) to identify adults who may be at elevated risk of CVD and the current cutpoints for obesity to identify adults who may be at elevated risk of mortality from all causes. They also recommend counseling overweight and obese individuals on their increased risk for CVD, type 2 diabetes, all-cause mortality and need for lifestyle changes.

MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD
RATIONALE:
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock
Chronic illness patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.
CLINICAL RECOMMENDATION STATEMENTS:
The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, The Physician’s Role in Medication Reconciliation, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION
RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided...
Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #402 - TOBACCO USE AND HELP WITH QUITTING AMONG ADOLESCENTS

RATIONALE:
This measure is intended to promote adolescent tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

The U.S. Preventive Services Task Force recommends that primary care clinicians provide interventions, including education or brief counseling, to prevent initiation of tobacco use in school-aged children and adolescents. (Strength of Recommendation = B) (U.S. Preventive Services Task Force, 2013)

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)
CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN COPD MEASURES GROUP:

#47 Care Plan
#51 Chronic Obstructive Pulmonary Disease (COPD): Spirometry Evaluation
#52 Chronic Obstructive Pulmonary Disease (COPD): Inhaled Bronchodilator Therapy
#110 Preventive Care and Screening: Influenza Immunization
#111 Pneumonia Vaccination Status for Older Adults
#130 Documentation of Current Medications in the Medical Record
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8898: I intend to report the COPD Measures Group

- Report the patient sample method:

  **20 Patient Sample Method via registries:** 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the COPD Measures Group are patients aged 18 years and older with a specific diagnosis of COPD accompanied by a specific patient encounter:

  **One of the following diagnosis codes indicating COPD:**

  **ICD-10-CM:** J41.0, J41.1, J41.8, J42, J43.0, J43.1, J43.2, J43.8, J43.9, J44.0, J44.1, J44.9

  **Accompanied by:**

  **One of the following patient encounter codes:** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

- To satisfactorily report the COPD Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measures #47 and #111 are only applicable for patients 65 years of age and older

- Measure #111 assesses whether patients 65 years of age or older have received one or more pneumococcal vaccinations.

- Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2015-2016 influenza season OR between October and December for the 2016-2017 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate.

- Instructions for qualifying numerator option reporting for each of the measures within the Chronic Obstructive Pulmonary Disease (COPD) Measures Group are displayed on the next several pages. The
A following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

**Composite QDC G8757**: All quality actions for the applicable measures in the COPD Measures Group have been performed for this patient

- **Measure Group Reporting Calculations**:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE**: The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
**Measure #47 (NQF 0326): Care Plan -- National Quality Strategy Domain: Communication and Care Coordination**

**DESCRIPTION:**
Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

**NUMERATOR:**
Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

**Numerator Instructions:** If patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, report **1124F**.

**Definition:**
Documentation that Patient did not Wish or was not able to Name a Surrogate Decision Maker or Provide an Advance Care Plan – May also include, as appropriate, the following:
- That the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship.

**NUMERATOR NOTE:** The CPT Category II codes used for this measure indicate: Advance Care Planning was discussed and documented. The act of using the Category II codes on a claim (or equivalent medical record documentation) indicates the provider confirmed that the Advance Care Plan was in the medical record (that is, at the point in time the code was assigned, the Advance Care Plan in the medical record was valid) or that advance care planning was discussed. The codes (or equivalent medical record documentation) are required annually to ensure that the provider either confirms annually that the plan in the medical record is still appropriate or starts a new discussion.

The provider does not need to review the Advance Care Plan annually with the patient to meet the numerator criteria; documentation of a previously developed advanced care plan that is still valid in the medical record meets numerator criteria.

**Numerator Options:**

**Performance Met:** Advance Care Planning discussed and documented; advance care plan or surrogate decision maker documented in the medical record (**1123F**)

**OR**

**Performance Met:** Advance Care Planning discussed and documented in the medical record; patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan (**1124F**)

**OR**

**Performance Not Met:** Advance care planning not documented, reason not otherwise specified (**1123F with 8P**)
### Measure #51 (NQF 0091): Chronic Obstructive Pulmonary Disease (COPD): Spirometry Evaluation -- National Quality Strategy Domain: Effective Clinical Care

**DESCRIPTION:**
Percentage of patients aged 18 years and older with a diagnosis of COPD who had spirometry results documented

**NUMERATOR:**
Patients with documented spirometry results in the medical record (FEV1 and FEV1/FVC)

**Numerator Instructions:** Look for most recent documentation of spirometry results in the medical record; do not limit the search to the reporting period.

**Numerator Options:**

- **Performance Met:** Spirometry results documented and reviewed (3023F)
- **Medical Performance Exclusion:** Documentation of medical reason(s) for not documenting and reviewing spirometry results (3023F with 1P)
- **Patient Performance Exclusion:** Documentation of patient reason(s) for not documenting and reviewing spirometry results (3023F with 2P)
- **System Performance Exclusion:** Documentation of system reason(s) for not documenting and reviewing spirometry results (3023F with 3P)
- **Performance Not Met:** Spirometry results not documented and reviewed, reason not otherwise specified (3023F with 8P)
Measure #52 (NQF 0102): Chronic Obstructive Pulmonary Disease (COPD): Inhaled Bronchodilator Therapy -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of COPD and who have an FEV1 less than 60% predicted and have symptoms who were prescribed an inhaled bronchodilator

NUMERATOR:
Patients who were prescribed an inhaled bronchodilator

Definition:
Prescribed – Includes patients who are currently receiving medication(s) that follow the treatment plan recommended at an encounter during the reporting period, even if the prescription for that medication was ordered prior to the encounter.

Numerator Options:
Performance Met:
Inhaled bronchodilator prescribed (4025F)
AND
Spirometry test results demonstrate FEV1 < 60% predicted and patient has COPD symptoms (e.g., dyspnea, cough/sputum, wheezing) (G8924)

OR
Medical Performance Exclusion:
Documentation of medical reason(s) for not prescribing an inhaled bronchodilator (4025F with 1P)

OR
Patient Performance Exclusion:
Documentation of patient reason(s) for not prescribing an inhaled bronchodilator (4025F with 2P)

OR
System Performance Exclusion:
Documentation of system reason(s) for not prescribing an inhaled bronchodilator (4025F with 3P)
AND
Spirometry test results demonstrate FEV1 < 60% predicted and patient has COPD symptoms (e.g., dyspnea, cough/sputum, wheezing) (G8924)

OR
Other Performance Exclusion:
Spirometry test results demonstrate FEV1 ≥ 60% predicted or patient does not have COPD symptoms (G8925)

OR
Other Performance Exclusion:
Spirometry test not performed or documented, reason not given (G8926)

OR
Performance Not Met:
Inhaled bronchodilator not prescribed, reason not otherwise specified (4025F with 8P)
AND
Spirometry test results demonstrate FEV1 < 60% predicted and patient has COPD symptoms (e.g., dyspnea, cough/sputum, wheezing) (G8924)
Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

NUMERATOR:
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

Numerator Instructions:
- If reporting this measure between January 1, 2016 and March 31, 2016, quality-data code **G8482** should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2015 or January, February, and March of 2016 for the flu season ending March 31, 2016.
- If reporting this measure between October 1, 2016 and December 31, 2016, quality-data code **G8482** should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2016 for the flu season ending March 31, 2017.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2015-2016 flu season OR 2016-2017 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, **G8482** should be reported.

Definition:
**Previous Receipt** - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

**NUMERATOR NOTE:** The numerator for this measure can be met by reporting either administration of an influenza vaccination or that the patient reported previous receipt of the current season’s influenza immunization. If the performance of the numerator is not met, a clinician can report a valid performance exclusion for having not administered an influenza vaccination. For clinicians reporting a performance exclusion for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

Numerator Options:
- **Performance Met:** Influenza immunization administered or previously received **(G8482)**
- **Other Performance Exclusion:** Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) **(G8483)**
- **Performance Not Met:** Influenza immunization was not administered, reason not given **(G8484)**
Measure #111 (NQF 0043): Pneumonia Vaccination Status for Older Adults -- National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients 65 years of age and older who have ever received a pneumococcal vaccine

**NUMERATOR:**
Patients who have ever received a pneumococcal vaccination

**NUMERATOR NOTE:** While the measure provides credit for adults 65 years of age and older who have ever received either the PCV13 or PPSV23 vaccine (or both), according to ACIP recommendations, patients should receive both vaccines. The order and timing of the vaccinations depends on certain patient characteristics, and are described in more detail in the ACIP recommendations.

**Numerator Options:**

**Performance Met:**
Pneumococcal vaccine administered or previously received (4040F)

**Performance Not Met:**
Pneumococcal vaccine was not administered or previously received, reason not otherwise specified (4040F with 8P)
**Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record -- National Quality Strategy Domain: Patient Safety**

**DESCRIPTION:**
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list **must** include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND **must** contain the medications’ name, dosage, frequency and route of administration.

**NUMERATOR:**
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list **must** include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND **must** contain the medications’ name, dosages, frequency and route of administration.

**Definitions:**
- **Current Medications** – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.
- **Route** - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
- **Not Eligible** - A patient is not eligible if the following reason is documented:
  - Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

**NUMERATOR NOTE:** The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

**Numerator Options:**
- **Performance Met:** Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)
- **Other Performance Exclusion:** Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)
- **Performance Not Met:** Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention – National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

**NUMERATOR:**
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

**Definitions:**
- **Tobacco Use** – Includes use of any type of tobacco.
- **Tobacco Cessation Intervention** – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

**NUMERATOR NOTE:** In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

**Numerator Options:**
- **Performance Met:** Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)
- **OR**
  - **Performance Met:** Current tobacco non-user (1036F)
  - **OR**
    - **Medical Performance Exclusion:** Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)
  - **OR**
    - **Performance Not Met:** Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #47 - CARE PLAN
RATIONALE:
It is essential that the patient’s wishes regarding medical treatment be established as much as possible prior to incapacity. The Work Group has determined that the measure should remain as specified with no required timeframe based on a review of the literature. Studies have shown that people do change their preferences often with regard to advanced care planning, but it primarily occurs after a major medical event or other health status change. In the stable patient, it would be very difficult to define the correct interval. It was felt by the Work Group that the error rate in simply not having addressed the issue at all is so much more substantial (Teno, 1997) than the risk that an established plan has become outdated that we should not define a specific timeframe at this time. As this measure is tested and reviewed, we will continue to evaluate if and when a specific timeframe should be included.

CLINICAL RECOMMENDATION STATEMENTS:
Advance directives are designed to respect patient’s autonomy and determine his/her wishes about future life-sustaining medical treatment if unable to indicate wishes. Key interventions and treatment decisions to include in advance directives are: resuscitation procedures, mechanical respiration, chemotherapy, radiation therapy, dialysis, simple diagnostic tests, pain control, blood products, transfusions, and intentional deep sedation.

Oral statements
- Conversations with relatives, friends, and clinicians are most common form; should be thoroughly documented in medical record for later reference.
- Properly verified oral statements carry same ethical and legal weight as those recorded in writing.

Instructional advance directives (DNR orders, living wills)
- Written instructions regarding the initiation, continuation, withholding, or withdrawal of particular forms of life-sustaining medical treatment.
- May be revoked or altered at any time by the patient.
- Clinicians who comply with such directives are provided legal immunity for such actions.

Durable power of attorney for health care or health care proxy
- A written document that enables a capable person to appoint someone else to make future medical treatment choices for him or her in the event of decisional incapacity. (AGS)

The National Hospice and Palliative Care Organization provides the Caring Connection web site, which provides resources and information on end-of-life care, including a national repository of state-by-state advance directives.

MEASURE #51 - CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD): SPIROMETRY EVALUATION RATIONALE:
Evaluation of lung function for a patient with COPD is vital to determine what treatments are needed and whether those treatments are effective. COPD is often underdiagnosed and misdiagnosed in the primary care setting. (Tinkelman, 2006) Marked underutilization of spirometry testing has been well documented and is thought to be a contributing factor. (Foster et al, 2007; Yawn et al, 2008; Lee et al, 2006; Damarla et al, 2006) A recent study found that only 32% of patients with a new diagnosis of COPD had undergone spirometry within the previous 2 years to 6 months following diagnosis. (Han et al., 2007) This measure is for patients already diagnosed with COPD, in order to confirm diagnosis.

CLINICAL RECOMMENDATION STATEMENTS:
A clinical diagnosis of COPD should be considered in any patient who has dyspnea, chronic cough or sputum production, and a history of exposure to risk factors for the disease. Spirometry is required to make the diagnosis in this clinical context; the presence of a post-bronchodilator FEV1/FVC < 0.70 confirms the presence of persistent airflow limitation and thus of COPD…Whereas spirometry was previously used to support a diagnosis of COPD,
Spirometry is now required to make a confident diagnosis of COPD. Spirometry is the most reproducible and objective measurement of airflow limitation available. (GOLD 2015)

ACP, ACCP, ATS, and ERS [COPD Guidelines] recommend that spirometry should be obtained to diagnose airflow obstruction in patients with respiratory symptoms (Grade: strong recommendation, moderate-quality evidence)...Spirometry is a pulmonary function test that is useful to identify airflow obstruction in symptomatic patients who may benefit from pharmacotherapy, long-term oxygen, or pulmonary rehabilitation (or all of these strategies). Symptomatic patients with FEV1 less than 60% predicted will benefit from inhaled treatments (anticholinergics, long-acting β-agonists, or corticosteroids). (ACP 2011)

MEASURE #52 - CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD): INHALED BRONCHODILATOR THERAPY
RATIONALE:
Inhaled bronchodilator therapy is effective in treating and managing the symptoms of COPD, particularly, for those patients with moderate to very severe COPD, and improving a patient’s quality of life. The Global Initiative for Chronic Obstructive Lung Disease (GOLD) guidelines recommend inhaled bronchodilators as a cornerstone of COPD symptom management; however, PCPs often turn to other agents as first-line COPD therapy (Barr et al, 2005; Foster et al, 2007). In a recent study of general medicine practices, 154 clinicians completed a survey to identify barriers to implementing seven recommendations from the GOLD guidelines. Adherence was lowest to... using FEV1 to guide management (12%). (Perez, et al., 2012)

CLINICAL RECOMMENDATION STATEMENTS:
For stable COPD patients with respiratory symptoms and FEV1 < 60% predicted, ACP, ACCP, ATS, and ERS recommend treatment with inhaled bronchodilators (Grade: strong recommendation, moderate-quality evidence). (Qaseem et al, 2011)

Bronchodilator medications are given on either an as-needed basis or a regular basis to reduce or prevent symptoms (Evidence A). Bronchodilator medications are central to symptom management in COPD. Inhaled therapy is preferred. Long-acting inhaled bronchodilators are convenient and more effective at producing maintained symptom relief than short-acting bronchodilators. Based on efficacy and side effects, inhaled bronchodilators are preferred over oral bronchodilators. (Evidence A) (GOLD, 2015)

MEASURE #110 – PREVENTIVE CARE AND SCREENING: INFLUENZA IMMUNIZATION
RATIONALE:
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged >=6 months who do not have contraindications. Vaccination optimally should occur before onset of influenza activity in the community. Health care providers should offer vaccination soon after vaccine becomes available (by October, if possible). Vaccination should be offered as long as influenza viruses are circulating. (CDC/ACIP, 2014)

MEASURE #111 - PNEUMONIA VACCINATION STATUS FOR OLDER ADULTS
RATIONALE:
Pneumonia is a common cause of illness and death in the elderly and persons with certain underlying conditions such as heart failure, diabetes, cystic fibrosis, asthma, sickle cell anemia, or chronic obstructive pulmonary disease (NHLBI, 2011). In 1998, an estimated 3,400 adults aged > 65 years died as a result of invasive pneumococcal disease (IPD) (CDC, 2003).
Among the 91.5 million US adults aged > 50 years, 29,500 cases of IPD, 502,600 cases of nonbacteremic pneumococcal pneumonia and 25,400 pneumococcal-related deaths are estimated to occur yearly; annual direct and indirect costs are estimated to total $3.7 billion and $1.8 billion, respectively. Pneumococcal disease remains a substantial burden among older US adults, despite increased coverage with 23-valent pneumococcal polysaccharide vaccine (PPV23) and indirect benefits afforded by PCV7 vaccination of young children (Weycker, et al., 2011).

Vaccination has been found to be effective against bacteremic cases (OR: 0.34; 95% CI: 0.27–0.66) as well as nonbacteremic cases (OR: 0.58; 95% CI: 0.39–0.86). Vaccine effectiveness was highest against bacteremic infections caused by vaccine types (OR: 0.24; 95% CI: 0.09–0.66) (Vila-Corcoles, et al., 2009).

**CLINICAL RECOMMENDATION STATEMENTS:**

The Advisory Committee on Immunization Practices’ (ACIP) released recommendations in September, 2014, describing the use of 13-valent pneumococcal conjugate vaccine (PCV13) and 23-valent pneumococcal polysaccharide vaccine (PPSV23) among adults aged ≥65 Years. According to the ACIP, both the PCV13 and PPSV23 should be administered routinely in series to all adults aged ≥65 years. Adults aged ≥65 years with no previous history or an unknown history of pneumococcal vaccination should receive PCV13 before PPSV23. Adults aged ≥65 years with a history of PPSV23 should receive PCV13, after which a second dose of PPSV23 may be administered for those adults with an indication for two doses of PPSV23.

**MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD**

**RATIONALE:**

In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient’s medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the
US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**
The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the
continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, *The Physician’s Role in Medication Reconciliation*, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

**MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION**

**RATIONALE:**
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)
INFLAMMATORY BOWEL DISEASE (IBD) MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN INFLAMMATORY BOWEL DISEASE (IBD) MEASURES GROUP:
#110 Preventive Care and Screening: Influenza Immunization
#111 Pneumonia Vaccination Status for Older Adults
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#270 Inflammatory Bowel Disease (IBD): Preventive Care: Corticosteroid Sparing Therapy
#271 Inflammatory Bowel Disease (IBD): Preventive Care: Corticosteroid Related Iatrogenic Injury – Bone Loss Assessment
#274 Inflammatory Bowel Disease (IBD): Testing for Latent Tuberculosis (TB) Before Initiating Anti-TNF (Tumor Necrosis Factor) Therapy
#275 Inflammatory Bowel Disease (IBD): Assessment of Hepatitis B Virus (HBV) Status Before Initiating Anti-TNF (Tumor Necrosis Factor) Therapy

INSTRUCTIONS FOR REPORTING:

• It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8899: I intend to report the Inflammatory Bowel Disease (IBD) Measures Group

• Report the patient sample method:

20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

• Patient sample criteria for the IBD Measures Group are patients aged 18 years and older with a specific diagnosis of IBD accompanied by a specific patient encounter:

One of the following diagnosis codes indicating IBD:

Accompanied by:

One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99406, 99407

• To satisfactorily report the IBD Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.
• Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2015-2016 influenza season OR between October and December for the 2016-2017 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate.

• Measure #111 should be reported on patients 18 years and older for purposes of this measures group. This measure assesses whether patients have received one or more pneumococcal vaccinations.

• Instructions for qualifying numerator option reporting for each of the measures within the Inflammatory Bowel Disease (IBD) Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  **Composite QDC G8758:** All quality actions for the applicable measures in the Inflammatory Bowel Disease (IBD) Measures Group have been performed for this patient

• Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

• **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
**Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization -- National Quality Strategy Domain: Community/Population Health**

**DESCRIPTION:**
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

**NUMERATOR:**
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

**Numerator Instructions:**
- If reporting this measure between January 1, 2016 and March 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2015 or January, February, and March of 2016 for the flu season ending March 31, 2016.
- If reporting this measure between October 1, 2016 and December 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2016 for the flu season ending March 31, 2017.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2015-2016 flu season OR 2016-2017 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, G8482 should be reported.

**Definition:**
**Previous Receipt** - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

**NUMERATOR NOTE:** The numerator for this measure can be met by reporting either administration of an influenza vaccination or that the patient reported previous receipt of the current season’s influenza immunization. If the performance of the numerator is not met, a clinician can report a valid performance exclusion for having not administered an influenza vaccination. For clinicians reporting a performance exclusion for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

**Numerator Options:**

- **Performance Met:** Influenza immunization administered or previously received (G8482)
- **Other Performance Exclusion:** Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) (G8483)
- **Performance Not Met:** Influenza immunization was not administered, reason not given (G8484)
**Measure #111 (NQF 0043): Pneumonia Vaccination Status for Older Adults -- National Quality Strategy Domain: Community/Population Health**

**DESCRIPTION:**
Percentage of patients 65 years of age and older who have ever received a pneumococcal vaccine

**NUMERATOR:**
Patients who have **ever** received a pneumococcal vaccination

**NUMERATOR NOTE:** While the measure provides credit for adults 65 years of age and older who have ever received either the PCV13 or PPSV23 vaccine (or both), according to ACIP recommendations, patients should receive both vaccines. The order and timing of the vaccinations depends on certain patient characteristics, and are described in more detail in the ACIP recommendations.

**Numerator Options:**

- **Performance Met:** Pneumococcal vaccine administered or previously received (4040F)
- **Performance Not Met:** Pneumococcal vaccine was not administered or previously received, reason not otherwise specified (4040F with 8P)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user.

Definitions:
Tobacco Use – Includes use of any type of tobacco.
Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F).

OR
Performance Met: Current tobacco non-user (1036F).

OR
Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (e.g., limited life expectancy, other medical reasons) (4004F with 1P).

OR
Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P).
Measure #270: Inflammatory Bowel Disease (IBD): Preventive Care: Corticosteroid Sparing Therapy -- National Quality Strategy Domain: Effective Clinical Care

**DESCRIPTION:**
Percentage of patients aged 18 years and older with a diagnosis of inflammatory bowel disease who have been managed by corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills that have been prescribed corticosteroid sparing therapy within the last twelve months

**NUMERATOR:**
Prescribed a corticosteroid sparing therapy (e.g., thiopurines, methotrexate, or biologic agents)

**Definition:**
Corticosteroids - Prednisone equivalents used expressly for the treatment of IBD and not for other indications (including premedication before anti-TNF therapy, non-IBD indications) can be determined using the following: 1 mg of prednisone = 1 mg of prednisolone; 5 mg of cortisone; 4 mg of hydrocortisone; 0.8 mg of triamcinnolone; 0.8 mg of methylprednisolone; 0.15 mg of dexamethasone; 0.15 mg of betamethasone.

**Numerator Options:**

**Performance Met:**
- Corticosteroid sparing therapy prescribed (4142F)
- Patient who have received or are receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills within the last twelve months (G9467)

**OR**

**Medical Performance Exclusion:**
Documentation of medical reason(s) for not treating with corticosteroid sparing therapy (e.g., benefits of continuing steroid therapy outweigh the risk of continuing steroid therapy or initiating steroid sparing therapy, patient is receiving the first course of corticosteroids for the treatment of IBD) (4142F with 1P)

**OR**

**Patient Performance Exclusion:**
Documentation of patient reason(s) for not treating with corticosteroid sparing therapy (e.g., patient refuses to initiate steroid sparing therapy) (4142F with 2P)

**AND**
- Patient who have received or are receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills within the last twelve months (G9467)

**OR**
**Other Performance Exclusion:**

Patient not receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills (G9468)

**OR**

**Performance Not Met:**

Corticosteroid sparing therapy not prescribed, reason not otherwise specified (4142F with 8P)

**AND**

Patient who have received or are receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills within the last twelve months (G9467)
Measure #271: Inflammatory Bowel Disease (IBD): Preventive Care: Corticosteroid Related Iatrogenic Injury – Bone Loss Assessment -- National Quality Strategy Domain: Effective Clinical Care

**DESCRIPTION:**
Percentage of patients aged 18 years and older with an inflammatory bowel disease encounter who were prescribed prednisone equivalents greater than or equal to 10 mg/day for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills and were documented for risk of bone loss once during the reporting year or the previous calendar year

**NUMERATOR:**
Patients who have received dose of corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills and who were documented for risk of bone loss during the reporting year or the pervious calendar year

**Definitions:**
- **Corticosteroids** - Prednisone equivalents used expressly for the treatment of IBD and not for other indications (including premedication before anti-TNF therapy, non-IBD indications) can be determined using the following: 1 mg of prednisone = 1 mg of prednisolone; 5 mg of cortisone; 4 mg of hydrocortisone; 0.8 mg of triamcinolone; 0.8 mg of methylprednisolone; 0.15 mg of dexamethasone; 0.15 mg of betamethasone.

- **Documented** - Documentation that an assessment for risk of bone loss has been performed or ordered. This includes, but is not limited to, review of systems and medication history, and ordering of Central Dual-energy X-Ray Absorptiometry (DXA) scan.

**Numerator Options:**

*Performance Met:*

Within the past 2 years, Central Dual-energy X-Ray Absorptiometry (DXA) ordered and documented review of systems and medication history or pharmacologic therapy (other than minerals/vitamins) for osteoporosis prescribed (G8861) AND Patients who have received or are receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills (G9469)

*OR*

*Other Performance Exclusion:*

Patients not receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills (G9470)
**Performance Not Met:**

Within the past 2 years, Central Dual-energy X-Ray Absorptiometry (DXA) not ordered and documented, no review of systems and no medication history or pharmacologic therapy (other than minerals/vitamins) for osteoporosis prescribed (G9472)

AND

Patients who have received or are receiving corticosteroids greater than or equal to 10 mg/day of prednisone equivalents for 60 or greater consecutive days or a single prescription equating to 600mg prednisone or greater for all fills (G9469)
Measure #274: Inflammatory Bowel Disease (IBD): Testing for Latent Tuberculosis (TB) Before Initiating Anti-TNF (Tumor Necrosis Factor) Therapy -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of inflammatory bowel disease (IBD) for whom a tuberculosis (TB) screening was performed and results interpreted within 6 months prior to receiving a first course of anti-TNF (tumor necrosis factor) therapy

NUMERATOR:
Patients who had TB screening performed and results interpreted, within 6 months prior to receiving a first course of anti-TNF therapy

Definition:
First Course of anti-TNF therapy - the first (ever) course of anti-TNF therapy

Numerator Options:
Performance Met: Documentation that tuberculosis (TB) screening test performed and results interpreted (3510F)

AND

Performance Met: Patients receiving a first course of anti-TNF therapy (G8868)

OR

Performance Met: Patients not receiving a first course of anti-TNF (tumor necrosis factor) therapy (6150F)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for not performing TB screening test within 6 months prior to receiving a first course of anti-TNF therapy (eg, patient positive for TB and documentation of past treatment; patient recently completed course of anti-TB therapy) (3510F with 1P)

OR

Patient Performance Exclusion: Documentation of patient reason(s) for not performing TB screening test within 6 months prior to receiving a first course of anti-TNF therapy (eg, patient declined) (3510F with 2P)

AND

Patients receiving a first course of anti-TNF therapy (G8868)

OR

Performance Not Met: TB screening test not performed within 6 months prior to receiving a first course of anti-TNF therapy, reason not otherwise specified (3510F with 8P)

AND

Patients receiving a first course of anti-TNF therapy (G8868)
Measure #275: Inflammatory Bowel Disease (IBD): Assessment of Hepatitis B Virus (HBV) Status Before Initiating Anti-TNF (Tumor Necrosis Factor) Therapy -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of inflammatory bowel disease (IBD) who had Hepatitis B Virus (HBV) status assessed and results interpreted within one year prior to receiving a first course of anti-TNF (tumor necrosis factor) therapy.

NUMERATOR:
Patients who had HBV status assessed and results interpreted within one year prior to receiving a first course of anti-TNF therapy.

Numerator Instructions: HBV status must be assessed by one of the following: HBsAG, HBsAG neutralization, HBcAb total, HBcAB IgM, HBsAB.

Definition:
First Course of anti-TNF therapy: the first (ever) course of anti-TNF therapy.

Numerator Options:

Performance Met:
Hepatitis B Virus (HBV) status assessed and results interpreted within one year prior to receiving a first course of anti-TNF (tumor necrosis factor) therapy (3517F)

OR

Performance Met:
Patient has documented immunity to hepatitis B and is receiving a first course of anti-TNF therapy (G8869)

OR

Other Performance Exclusion:
Documented reason for not assessing Hepatitis B Virus (HBV) status (e.g. patient not receiving a first course of anti-TNF therapy, patient declined) within one year prior to first course of anti-TNF therapy (G9504)

OR

Performance Not Met:
Hepatitis B Virus (HBV) status not assessed and results interpreted within one year prior to receiving a first course of anti-TNF (tumor necrosis factor) therapy, reason not otherwise specified (3517F with 8P)
MEASURE #110 – PREVENTIVE CARE AND SCREENING: INFLUENZA IMMUNIZATION

RATIONALE:
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged >=6 months who do not have contraindications. Vaccination optimally should occur before onset of influenza activity in the community. Health care providers should offer vaccination soon after vaccine becomes available (by October, if possible). Vaccination should be offered as long as influenza viruses are circulating. (CDC/ACIP, 2014)

MEASURE #111 - PNEUMONIA VACCINATION STATUS FOR OLDER ADULTS

RATIONALE:
Pneumonia is a common cause of illness and death in the elderly and persons with certain underlying conditions such as heart failure, diabetes, cystic fibrosis, asthma, sickle cell anemia, or chronic obstructive pulmonary disease (NHLBI, 2011). In 1998, an estimated 3,400 adults aged > 65 years died as a result of invasive pneumococcal disease (IPD) (CDC, 2003).

Among the 91.5 million US adults aged > 50 years, 29,500 cases of IPD, 502,600 cases of nonbacteremic pneumococcal pneumonia and 25,400 pneumococcal-related deaths are estimated to occur yearly; annual direct and indirect costs are estimated to total $3.7 billion and $1.8 billion, respectively. Pneumococcal disease remains a substantial burden among older US adults, despite increased coverage with 23-valent pneumococcal polysaccharide vaccine, (PPV23) and indirect benefits afforded by PCV7 vaccination of young children (Weycker, et al., 2011).

Vaccination has been found to be effective against bacteremic cases (OR: 0.34; 95% CI: 0.27–0.66) as well as nonbacteremic cases (OR: 0.58; 95% CI: 0.39–0.86). Vaccine effectiveness was highest against bacteremic infections caused by vaccine types (OR: 0.24; 95% CI: 0.09–0.66) (Vila-Corcoles, et al., 2009).

CLINICAL RECOMMENDATION STATEMENTS:
The Advisory Committee on Immunization Practices’ (ACIP) released recommendations in September, 2014, describing the use of 13-valent pneumococcal conjugate vaccine (PCV13) and 23-valent pneumococcal polysaccharide vaccine (PPSV23) among adults aged ≥65 Years. According to the ACIP, both the PCV13 and PPSV23 should be administered routinely in series to all adults aged ≥65 years. Adults aged ≥65 years with no previous history or an unknown history of pneumococcal vaccination should receive PCV13 before PPSV23. Adults aged ≥65 years with a history of PPSV23 should receive PCV13, after which a second dose of PPSV23 may be administered for those adults with an indication for two doses of PPSV23.

MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION

RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.
CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #270 - INFLAMMATORY BOWEL DISEASE (IBD): PREVENTIVE CARE: CORTICOSTEROID SPARING THERAPY
RATIONAL:
Thirty to forty percent of patients with moderate to severe IBD have steroid dependent disease. That means that they are unable to taper off steroids without experiencing a flare up. (Crohn’s and Colitis Foundation of America, Corticosteroids, Special Considerations. www.ccfa.org, Jan. 16, 2009). A retrospective study examined whether the treatment of Crohn’s disease (CD) and ulcerative colitis (UC) with immunosuppressant medications was associated with an increased risk of death prior to antitumor necrosis factor therapies. The authors found that patients with both CD and UC are at increased risk of death during periods of current corticosteroid use. In contrast, current treatment with thiopurines was not associated with an increased risk of death. (Lewis J et al. Immunosuppressant Medications and Mortality in Inflammatory Bowel Disease. Am J Gastro.2008; 103:1428-1435). Similar findings were reached after an additional 5 years of follow-up in this patient population using multivariate logistic regression analyses which demonstrated a significant increase in mortality risk associated with chronic corticosteroid therapy, Hazard Ratio-2.14. (Lichtenstein G et al. Serious Infection and Mortality in Patients with Crohn’s Disease: More Than 5 Years of Follow-up in the TREAT Registry. Am J Gastro. 2012: 107:1409-1422.)

CLINICAL RECOMMENDATION STATEMENTS:
Long-term treatment with corticosteroids is undesirable. Patients with chronic active corticosteroid-dependent disease (either CD or UC) should be treated with AZA [azathioprine] 2.0 to 3.0 mg/kg/day or 6-MP [6-mercaptopurine] 1.0 to 1.5 mg/kg/day in an effort to lower or preferably eliminate corticosteroid use. Infliximab is another option in this situation, as is combination infliximab/antimetabolite therapy. (Grade A) (American

Individual patients with either CD or UC who experience a severe flare of disease requiring corticosteroid treatment or require retreatment during the year with another course of corticosteroids should be considered for initiation of therapy with AZA 2.0 to 3.0 mg/kg/day or 6-MP 1.0 to 1.5 mg/kg/day in an effort to avoid future corticosteroid use. Infliximab is another option in this situation, as is combination infliximab/antimetabolite therapy. (Grade C) (American Gastroenterological Association Institute. American Gastroenterological Association Institute Medical Position Statement on Corticosteroids, Immunomodulators, and Infliximab in Inflammatory Bowel Disease. Gastroenterology. 2006; 130:935–939.)

Conventional corticosteroids are not efficacious in maintenance treatment of patients with CD (Grade A) or patients with UC (Grade B). (American Gastroenterological Association Institute. American Gastroenterological Association Institute Medical Position Statement on Corticosteroids, Immunomodulators, and Infliximab in Inflammatory Bowel Disease. Gastroenterology.2006; 130:935–939.)

Corticosteroids should not be used to maintain remission (EL1a, RG A) (European Crohn’s and Colitis Organization [ECCO, 2006]. European evidence based consensus on the diagnosis and management of Crohn's disease: current management. Gut. 2006 Mar; 55 Suppl 1:i16-35.)

Conventional corticosteroids should not be used as long-term agents to prevent relapse of CD (Grade A). Budesonide at a dose of 6 mg/day reduces the time to relapse in ileal and/or right colonic disease, but does not provide significant maintenance benefits after 6 months (Grade A). Azathioprine/6-mercaptopurine (Grade B) and methotrexate (Grade B) have demonstrable maintenance benefits after inductive therapy with corticosteroids. (Lichtenstein, GR et al. Management of Crohn’s Disease in Adults. Am J Gastro. 2009.)

This is the first report from the TREAT Registry, a large, prospective, observational research program designed to address the long term safety of medications, including infliximab, for the treatment of CD. After adjustment for confounding factors including disease severity and the use of other medications, the risk for serious infection or death with infliximab use was similar to that observed with the use of conventional immunomodulators, and was not higher than the overall incidence of serious infections among all CD patients.


MEASURE #271 - INFLAMMATORY BOWEL DISEASE (IBD): PREVENTIVE CARE: CORTICOSTEROID RELATED IATROGENIC INJURY – BONE LOSS ASSESSMENT

RATIONALE:
Patients with inflammatory bowel disease (IBD) often rely on their gastroenterologist for healthcare maintenance. In addition, the gastroenterologist also provides guidance to the patient’s primary care physician on a broad range of issues such as vaccinations, osteoporosis screening, and cancer/dysplasia surveillance. Screening for osteoporosis is based on a combination of individual risk factors, but a history of prolonged (>3 months) steroid use over 10 mg is reason enough to obtain dual-energy x-ray absorptiometry scanning. (Moscandrew M., Mahadevan U., Kane S. General Health Maintenance in IBD. Inflamm Bowel Dis. 2009; 15:1399–1409.)

The decision to measure bone density should follow an individualized approach. It should be considered when it will help the patient decide whether to institute treatment to prevent osteoporotic fracture. It should also be considered in patients receiving glucocorticoid therapy for two months or more and patients with other conditions that place them at high risk for osteoporotic fracture. (NIH)

The most commonly used measurement to diagnose osteoporosis and predict fracture risk is based on assessment of bone mineral density BMD by dual energy X-ray absorptiometry (DXA). (NIH)

Measurements of BMD made at the hip predict hip fracture better than measurements made at other sites while BMD measurement at the spine predicts spine fracture better than measures at other sites. (NIH)


**CLINICAL RECOMMENDATION STATEMENTS:**

IBD has only a modest effect on BMD, with a pooled Z score of -0.5 (level A evidence). (AGA, American Gastroenterological Association Medical Position Statement: Guidelines on Osteoporosis in Gastrointestinal Diseases, 2003).

Corticosteroid use is the variable most strongly associated with osteoporosis (level A evidence). However, it is difficult to distinguish corticosteroid use from disease activity in terms of causal impact on bone density, because the two are closely linked. (AGA, American Gastroenterological Association Medical Position Statement: Guidelines on Osteoporosis in Gastrointestinal Diseases. 2003.)

However there is strong evidence that those on long-term steroids of greater than three months have a significant increase risk of fracture (Papaioannou A. et al. All Patients with Inflammatory Bowel Disease Should Have Bone Density Assessment: Pro. Inflammatory Bowel Diseases. 2001.7(2):158-162) DXA screening is recommended in inflammatory bowel disease patients with one or more risk factors: history of vertebral fractures, postmenopausal, male >50 years of age, chronic corticosteroid therapy, or hypogonadism. If the initial DXA is normal, the AGA recommends repeat testing in 2-3 years. If the patient has osteoporosis, or has a history of a low trauma fracture, evaluation for secondary causes should be completed. Suggested studies include a complete blood count, serum concentrations of alkaline phosphatase level, calcium, creatinine, and 25-OH vitamin D, serum protein electrophoresis, serum calcium, and a testosterone level in males. (Bernstein CN, Leslie WD, Leboff MS. AGA technical review on osteoporosis in gastrointestinal diseases. *Gastroenterology*. 2003;124(3):795-841).

Data on the treatment of osteoporosis in Crohn’s disease depend on studies that are not specific to IBD. The evidence levels and recommendation grades are accordingly marked down. Weight bearing, isotonic exercise [EL2b, RG B], stopping smoking [EL3b, RG C], avoiding alcohol excess [EL4, RG D], and maintaining adequate dietary calcium (>1 g/day) [EL2b, RG B] are beneficial. Hormone replacement treatment is no longer generally advised in post-menopausal women with osteoporosis [EL2b, RG B], but regular use of bisphosphonates, calcitomin and its derivatives, and raloxifene may reduce or prevent further bone loss [EL2b, RG C]. Data in men with osteoporosis are less secure but bisphosphonates are probably of value, [EL3b, RG C]. Newer data also support the use of strontium salts [EL2a, RG B]. Patients receiving systemic steroid therapy should receive calcium and vitamin D for prophylaxis [EL5, RG D]. (Assche G et al., Second European evidence-based consensus on ulcerative colitis' diagnosis and management. *Journal of Crohn’s and Colitis* (2013) 7, 1-33.)

Diagnosis of osteoporosis in adults is best made from at T score of less than -2.5 on radiographic bone densitometry [EL1a, RG A], all other diagnostic methods having current limitations [EL2b, RG B]. The presence of osteoporosis identifies patients at above average risk for fracture and who should receive treatment [EL2b, RG B]. Osteopenia
may be a prognostic marker for future osteoporosis, but presents little direct risk [EL2b, RG C]. However if the T score is less than -1.5, treatment with calcium and vitamin D should be recommended [EL4, RG C]. Pre-existing history of fracture is of substantial adverse prognostic significance and patients should be treated for osteoporosis even if the T score is normal [EL4, RG C]. (Assche G et al., Second European evidence-based consensus on ulcerative colitis' diagnosis and management. Journal of Crohn’s and Colitis (2013) 7, 1-33.)

MEASURE #274 - INFLAMMATORY BOWEL DISEASE (IBD): TESTING FOR LATENT TUBERCULOSIS (TB) BEFORE INITIATING ANTI-TNF (TUMOR NECROSIS FACTOR) THERAPY

RATIONALE:
Before initiating biologic anti-TNF therapy for a patient with IBD, it is essential to screen the patient for tuberculosis, as research has documented a higher incidence of TB after anti-TNF therapy. All patients being considered for biologic anti-TNF therapy should receive a tuberculin skin test, even if the patient has previously received the BCG vaccination. Test results, in addition to patient risk for TB and other tests, should be used to assess the patient’s risk for latent TB infection. This is a patient safety measure.

Opportunity for improvement: While there are a limited number of studies that investigate gaps in care for patients with IBD, the research that does exist identifies opportunities for improvement in care areas: 1) there is a lack of adherence to tuberculosis screening, most noticeably in the use of disease-modifying anti-TNF drugs, and 2) variations in care by practice setting, geographic region and physician specialty.

Golimumab, certolizumab pegol, infliximab and adalimumab may all trigger latent TB. Also, all patients should be monitored during therapy for active TB even if the initial latent TB testing is negative. (See FDA package labeling for these anti-TNF biological agents).

Reactivation of hepatitis B virus has been reported in patients who are carriers of this virus and are taking TNF blocker medicines. (Kaiser T, Moessner J, McHutchison JS, Tillmann HG. Life threatening liver disease during treatment with monoclonal antibodies. BMJ 2009;338:b508.)

CLINICAL RECOMMENDATION STATEMENTS:
Prior to commencing treatment with anti-TNF, all patients should be screened for TB in accordance with the British Thoracic Society (BTS) guidelines. Active TB needs to be adequately treated before anti-TNF therapy can be started. Prior to commencing anti-TNF therapy, consideration of prophylactic anti-TB therapy (as directed by the BTS guidelines) should be given to patients with evidence of potential latent disease (past history of TB treatment or abnormal chest X-ray raising the possibility of TB) after consultation with a local TB specialist. All patients commenced on anti-TNF therapies need to be closely monitored for TB. [Level of Evidence C] (J. Ledingham and C. Deighton, on behalf of the British Society for Rheumatology Standards, Guidelines and Audit Working Group (SGAWG). Update on the British Society for Rheumatology guidelines for prescribing TNFa blockers in adults with rheumatoid arthritis (update of previous guidelines of April 2001)Rheumatology. 2005; 44(2):157-163.]

In an immunocompromised person (adult or child), the tuberculin skin test (TST) should be the initial test used to detect LTBI. If the TST is positive, the person should be considered to have LTBI.

However, in light of the known problem with false-negative TST results in immunocompromised populations, a clinician still concerned about the possibility of LTBI in an immunocompromised person with a negative initial TST result may perform an IGRA test. If the IGRA (interferon-gamma release assay) result is positive, the person might be considered to have LTBI. If the IGRA result is indeterminate, the test should be repeated to rule out laboratory error. If the repeat test is also indeterminate, the clinician should suspect anergy and rely on the person’s history, clinical features, and any other laboratory results to make a decision as to the likelihood of LTBI. Although both IGRA may be used as described above, there is evidence that the T-SPOT.TB assay may be more sensitive than the QFT-GIT assay in active TB, and this characteristic might be especially relevant in immunocompromised populations. While the approach of accepting either test result (TST or IGRA) as positive will improve the sensitivity of detecting LTBI in immunocompromised populations, there are no data supporting the efficacy of preventive
therapy in TST-negative but IGRA-positive individuals. Thus the ©2010-2011 American Gastroenterological Association. All rights reserved. Page 31 of 52 clinician must weigh the potential benefit of detecting more persons with positive test results against the lack of evidence for the benefit of preventive therapy in such persons. (Canada Communicable Disease Report, October 2008.)


MEASURE #275 - INFLAMMATORY BOWEL DISEASE (IBD): ASSESSMENT OF HEPATITIS B VIRUS (HBV) STATUS BEFORE INITIATING ANTI-TNF (TUMOR NECROSIS FACTOR) THERAPY

RATIONALE:
Before initiating biologic anti-TNF therapy for a patient with IBD, it is essential to screen the patient for HBV, as research has documented reactivation of HBV after anti-TNF therapy. This is a patient safety measure.

Opportunity for improvement: While there are a limited number of studies that investigate gaps in care for patients with IBD, the research that does exist identifies opportunities for improvement in care areas: 1) there is a lack of adherence to documentation of HBV screening, most noticeably in the use of disease-modifying anti-TNF drugs, and 2) variations in care by practice setting, geographic region and physician specialty.

See FDA package labeling for anti-TNF biological agents — golimumab, certolizumab pegol, infliximab and adalimumab.

Reactivation of hepatitis B virus has been reported in patients who are carriers of this virus and are taking TNF blocker medicines. (Kaiser T, Moessner J, McHutchison JG, Tillmann HG. Life threatening liver disease during treatment with monoclonal antibodies. BMJ. 2009;338:b508)

CLINICAL RECOMMENDATION STATEMENTS:
SLEEP APNEA MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUP:

2016 PQRS MEASURES IN SLEEP APNEA MEASURES GROUP:
#128  Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan
#130  Documentation of Current Medications in the Medical Record
#226  Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#276  Sleep Apnea: Assessment of Sleep Symptoms
#277  Sleep Apnea: Severity Assessment at Initial Diagnosis
#278  Sleep Apnea: Positive Airway Pressure Therapy Prescribed
#279  Sleep Apnea: Assessment of Adherence to Positive Airway Pressure Therapy

INSTRUCTIONS FOR REPORTING:
- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8900: I intend to report the Sleep Apnea Measures Group

- Report the patient sample method:
  20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Sleep Apnea Measures Group are patients aged 18 years and older with a specific diagnosis of Sleep Apnea accompanied by a specific patient encounter:

  One of the following diagnosis codes indicating Sleep Apnea:
  ICD-10-CM: G47.30, G47.33

  Accompanied by:

  One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

- To satisfactorily report the Sleep Apnea Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #128 does not need to be reported (is not applicable) if the patient is considered not eligible for BMI calculation or follow-up plan – A patient is not eligible if one or more of the following reasons are documented:
  - Patient is receiving palliative care
  - Patient is pregnant
  - Patient refuses BMI measurement (refuses height and/or weight)
  - Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
  - Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status
• Instructions for qualifying numerator option reporting for each of the measures within the Sleep Apnea Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

**Composite QDC G8759:** All quality actions for the applicable measures in the Sleep Apnea Measures Group have been performed for this patient

• Measure Group Reporting Calculations:

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

• **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #128 (NQF 0421): Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older with a BMI documented during the current encounter or during the previous six months AND with a BMI outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter

Normal Parameters:
- Age 65 years and older BMI ≥ 23 and < 30 kg/m²
- Age 18 – 64 years BMI ≥ 18.5 and < 25 kg/m²

NUMERATOR:
Patients with a documented BMI during the encounter or during the previous six months, AND when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter

Numerator Instructions:
- Height and Weight – An eligible professional or their staff is required to measure both height and weight. Both height and weight must be measured within six months of the current encounter and may be obtained from separate encounters. Self-reported values cannot be used.
- Follow-Up Plan – If the most recent documented BMI is outside of normal parameters, then a follow-up plan is documented during the encounter or during the previous six months of the current encounter. The documented follow-up plan must be based on the most recent documented BMI outside of normal parameters, example: “Patient referred to nutrition counseling for BMI above normal parameters.” (See Definitions for examples of a follow-up plan treatments)
- Performance Met for G8417 & G8418
  - If the provider documents a BMI and a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter, the provider documents a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter AND the patient has a documented follow-up plan for a BMI outside normal parameters within the previous six months of the current visit

Definitions:
BMI – Body mass index (BMI), is a number calculated using the Quetelet index: weight divided by height squared (W/H²) and is commonly used to classify weight categories. BMI can be calculated using:

Metric Units: BMI = Weight (kg) / (Height (m) x Height (m))

OR

English Units: BMI = Weight (lbs) / (Height (in) x Height (in)) x 703

Follow-Up Plan – Proposed outline of treatment to be conducted as a result of a BMI out of normal parameters. A follow-up plan may include but is not limited to:
- Documentation of education
- Referral (e.g., a registered dietitian/nutritionist, occupational therapist, physical therapist, primary care provider, exercise physiologist, mental health professional, or surgeon)
- Pharmacological interventions
- Dietary supplements
- Exercise counseling
- Nutrition counseling

Not Eligible for BMI Calculation or Follow-Up Plan – A patient is not eligible if one or more of the following reasons are documented:
  - Patient is receiving palliative care
  - Patient is pregnant
  - Patient refuses BMI measurement (refuses height and/or weight)
  - Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
  - Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

Numerator Options:

Performance Met: BMI is documented within normal parameters and no follow-up plan is required (G8420)

OR

Performance Met: BMI is documented above normal parameters and a follow-up plan is documented (G8417)

OR

Performance Met: BMI is documented below normal parameters and a follow-up plan is documented (G8418)

OR

Performance Not Met: BMI not documented and no reason is given (G8421)

OR

Performance Not Met: BMI documented outside normal parameters, no follow-up plan documented, no reason given (G8419)
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record – National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.

Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).

Not Eligible - A patient is not eligible if the following reason is documented:
- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:

Performance Met:
Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

OR

Other Performance Exclusion:
Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR

Performance Not Met:
Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

**NUMERATOR:**
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

**Definitions:**
- Tobacco Use – Includes use of any type of tobacco.
- Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

**NUMERATOR NOTE:** In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

**Numerator Options:**
**Performance Met:**
- Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

**OR**
**Performance Met:**
- Current tobacco non-user (1036F)

**OR**
**Medical Performance Exclusion:**
- Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)

**OR**
**Performance Not Met:**
- Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
Measure #276: Sleep Apnea: Assessment of Sleep Symptoms -- National Quality Strategy
Domain: Effective Clinical Care

DESCRIPTION:
Percentage of visits for patients aged 18 years and older with a diagnosis of obstructive sleep apnea that includes documentation of an assessment of sleep symptoms, including presence or absence of snoring and daytime sleepiness.

NUMERATOR:
Patient visits with an assessment of sleep symptoms documented, including presence or absence of snoring and daytime sleepiness.

Numerator Options:
- **Performance Met:** Sleep apnea symptoms assessed, including presence or absence of snoring and daytime sleepiness (G8839)
- **Other Performance Exclusion:** Documentation of reason(s) for not documenting an assessment of sleep symptoms (e.g., patient didn't have initial daytime sleepiness, patient visited between initial testing and initiation of therapy) (G8840)
- **Performance Not Met:** Sleep apnea symptoms not assessed, reason not given (G8841)
**Measure #277: Sleep Apnea: Severity Assessment at Initial Diagnosis -- National Quality Strategy**  
*Domain: Effective Clinical Care*

**DESCRIPTION:**  
Percentage of patients aged 18 years and older with a diagnosis of obstructive sleep apnea who had an apnea hypopnea index (AHI) or a respiratory disturbance index (RDI) measured at the time of initial diagnosis.

**NUMERATOR:**  
Patients who had an apnea hypopnea index (AHI) or a respiratory disturbance index (RDI) measured at the time of initial diagnosis.

**Definitions:**  
- **Apnea-Hypopnea Index (AHI)** for polysomnography performed in a sleep lab is defined as (Total Apneas + Hypopneas per hour of sleep); Apnea-Hypopnea Index (AHI) for a home sleep study is defined as (Total Apneas + Hypopneas per hour of monitoring).
- **Respiratory Disturbance Index (RDI)** - is defined as (Total Apneas + Hypopneas + Respiratory Effort Related Arousals per hour of sleep).

**Numerator Options:**

**Performance Met:**
Apnea hypopnea index (AHI) or respiratory disturbance index (RDI) measured at the time of initial diagnosis (G8842)

**Other Performance Exclusion:**
Documentation of reason(s) for not measuring an apnea hypopnea index (AHI) or a respiratory disturbance index (RDI) at the time of initial diagnosis (e.g., psychiatric disease, dementia, patient declined, financial, insurance coverage, test ordered but not yet completed) (G8843)

**Performance Not Met:**
Apnea hypopnea index (AHI) or respiratory disturbance index (RDI) not measured at the time of initial diagnosis, reason not given (G8844)
Measure #278: Sleep Apnea: Positive Airway Pressure Therapy Prescribed -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of moderate or severe obstructive sleep apnea who were prescribed positive airway pressure therapy

NUMERATOR:
Patients who were prescribed positive airway pressure therapy

Definition:
Moderate or severe sleep apnea - apnea hypopnea index (AHI) or a respiratory disturbance index (RDI) greater than or equal to 15 episodes per hour of sleep

Numerator Options:

Performance Met:
- Positive airway pressure therapy prescribed (G8845)
- Moderate or severe obstructive sleep apnea (apnea hypopnea index (AHI) or respiratory disturbance index (RDI) of 15 or greater) (G8846)

OR

Other Performance Exclusion:
- Mild obstructive sleep apnea (apnea hypopnea index (AHI) or respiratory disturbance index (RDI) of less than 15) (G8848)

OR

Other Performance Exclusion:
- Documentation of reason(s) for not prescribing positive airway pressure therapy (e.g., patient unable to tolerate, alternative therapies used, patient declined, financial, insurance coverage) (G8849)

AND
- Moderate or severe obstructive sleep apnea (apnea hypopnea index (AHI) or respiratory disturbance index (RDI) of 15 or greater) (G8846)

OR

Performance Not Met:
- Positive airway pressure therapy not prescribed, reason not given (G8850)

AND
- Moderate or severe obstructive sleep apnea (apnea hypopnea index (AHI) or respiratory disturbance index (RDI) of 15 or greater) (G8846)
Measure #279: Sleep Apnea: Assessment of Adherence to Positive Airway Pressure Therapy –
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of visits for patients aged 18 years and older with a diagnosis of obstructive sleep apnea who were prescribed positive airway pressure therapy who had documentation that adherence to positive airway pressure therapy was objectively measured.

NUMERATOR:
Patient visits with documentation that adherence to positive airway pressure therapy was objectively measured.

Definition:
Objectively measured is defined as – positive airway pressure machine-generated measurement of hours of use.

Numerator Options:

Performance Met:
Objective measurement of adherence to positive airway pressure therapy, documented (G8851)
AND
Positive airway pressure therapy was prescribed (G8852)

OR

Other Performance Exclusion:
Positive airway pressure therapy not prescribed (G8853)

OR

Other Performance Exclusion:
Documentation of reason(s) for not objectively measuring adherence to positive airway pressure therapy (e.g., patient didn’t bring data from continuous positive airway pressure [CPAP], therapy not yet initiated, not available on machine) (G8854)
AND
Positive airway pressure therapy was prescribed (G8852)

OR

Performance Not Met:
Objective measurement of adherence to positive airway pressure therapy not performed, reason not given (G8855)
AND
Positive airway pressure therapy was prescribed (G8852)
SLEEP APNEA MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #128 - PREVENTIVE CARE AND SCREENING: BODY MASS INDEX (BMI) SCREENING AND FOLLOW-UP PLAN

RATIONALE:

Normal Parameters for Age 65 Years and Older

Winter et al. (2014) performed a meta-analysis looking at the relationship between BMI and all-cause mortality among adults 65 and older. They identified a higher risk of mortality among those with a BMI <23 kg/m2 and recommended monitoring weight status in this group to address any modifiable causes of weight loss promptly with due consideration of individual comorbidities. Dahl et al. (2013) reported that old persons (70-79) who were overweight had a lower mortality risk than old persons who were of normal weight, even after controlling for weight change and multimorbidity. The study also shows that persons who increased or decreased in BMI had a greater mortality risk than those who had a stable BMI, particularly those aged 70 to 79. Their results provide support to the belief that the World Health Organization guidelines for BMI are overly restrictive in old age.

BMI Above Upper Parameters

Obesity continues to be a costly public health concern in the United States. The Centers for Disease Control and Prevention (CDC, 2010) reported in 2009, no state met the Healthy People 2010 obesity target of 15 percent and the self-reported overall prevalence of obesity among adults had increased 1.1 percentage points in 2007 to 26.7 percent (2010). Ogden, Carroll, Kit and Flegal (2013) reported the prevalence of BMI-defined obesity in adults is high and continues to exceed 30% in most sex-age groups (34.9% overall). They also stated the overall prevalence of obesity did not differ between men and women in 2011–2012; however, among non-Hispanic black adults, 56.6% of women were obese compared with 37.1% of men. In addition to the continued high prevalence rate for adults in general, Flegal, Carroll & Kit (2012) report a significant increase for men and for non-Hispanic black and Mexican American women over the 12-year period from 1999 through 2010 (2012). Moyer (2012) reported: Obesity is associated with such health problems as an increased risk for coronary artery disease, type 2 diabetes, various types of cancer, gallstones and disability. These comorbid medical conditions are associated with higher use of health care services and costs among obese patients (p. 373).

Obesity is also associated with an increased risk of death, particularly in adults younger than age 65 years and has been shown to reduce life expectancy by 6 to 20 years depending on age and race (LeBlanc et al., 2011). Masters, et al. (2013) also showed mortality due to obesity varied by race and gender. They estimated adult deaths between 1986 and 2006 associated with overweight and obesity was 5.0% and 15.6% for Black and White men, and 26.8% and 21.7% for Black and White women, respectively. They also found a stronger association than previous research demonstrated between obesity and mortality risk at older ages.

Finkelstein, Trogdon, Cohen and Dietz (2009) found that in 2006, across all payers, per capita medical spending for the obese is $1,429 higher per year, (42 percent) than for someone of normal weight. Using 2008 dollars, this was estimated to be equivalent to $147 billion dollars in medical care costs related to obesity.

Padula, Allen and Nair (2014) examined data from a commercial claims and encounters database to estimate the cost for obesity and associated comorbidities among working-age adults who had a claim with a primary or secondary diagnosis of obesity in 2006-2007. The mean net expenditure for inpatient and outpatient claims was $1,907 per patient per visit. The increases in cost for comorbidities ranged from $527 for obesity with CHF to $15,733 for the combination of obesity, diabetes mellitus, hypertension and depression.

In addition to a high prevalence rate of obesity, less than 50% of obese adults in 2010 received advice to exercise or perform physical activity (Barnes & Schoenborn, 2012).

BMI Below Normal Parameters

In the National Center for Health Statistics (NCHS) Health E-Stat, Fryer and Ogden (2012) reported that poor nutrition or underlying health conditions can result in underweight. Results from the 2007-2010 National Health and

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Nutrition Examination Survey (NHANES), using measured heights and weights, indicate an estimated 1.7% of U.S. adults are underweight with women more likely to be underweight than men (2012).

In a cohort study conducted by Borrell and Lalitha (2014), data from NHANES III (1988-1994) was linked to the National Death Index mortality file with follow-up to 2006, and showed that when compared to their normal weight counterparts (BMI 18.5-25 kg/m2), underweight (BMI <18.5 kg/m2) had significantly higher death rates (Hazard Ratio= 2.27; 95% confidence interval (CI) = 1.78, 2.90).

Ranhoff, Gjøen and Mowe (2005) recommended using BMI < 23 kg/m2 for the elderly to identify positive results with malnutrition screens and poor nutritional status.

**CLINICAL RECOMMENDATION STATEMENTS:**

Although multiple clinical recommendations addressing obesity have been developed by professional organizations, societies and associations, two recommendations have been identified which exemplify the intent of the measure and address the numerator and denominator.

The US Preventive Health Services Task Force (USPSTF) recommends screening all adults (aged 18 years and older) for obesity. Clinicians should offer or refer patients with a BMI of 30 or higher to intensive, multicomponent behavioral interventions. This is a B recommendation (Moyer, 2012).

As cited in Wilkinson et al. (2013), Institute for Clinical Systems Improvement (ICSI) Preventive Services for Adults, Obesity Screening (Level II) Recommendation provides the following guidance:

- Record height, weight and calculate body mass index at least annually
- Clinicians should consider waist circumference measurement to estimate disease 25 to 34.9 kg/m2, sex risk for patients who have BMI scores indicative of overweight or obesity class I. For adult patients with a BMI of specific waist circumference cutoffs should be used in conjunction with BMI to identify increased disease risk.
- A BMI greater or equal to 30 is defined as obese
- A BMI of 25-29 is defined as overweight
- Intensive intervention for obese individuals, based on BMI, is recommended by the U.S. Preventive Services to help control weight.

Similarly, the 2013 joint report/guideline from the American Heart Association, American College of Cardiology and The Obesity Society also recommend measuring height and weight and calculating BMI at annual visits or more frequently, using the current cutpoints for overweight (BMI>25.0-29.9 kg/m2) and obesity (BMI ≥30 kg/m2) to identify adults who may be at elevated risk of CVD and the current cutpoints for obesity to identify adults who may be at elevated risk of mortality from all causes. They also recommend counseling overweight and obese individuals on their increased risk for CVD, type 2 diabetes, all-cause mortality and need for lifestyle changes.

**MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD RATIONALE:**

In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping
track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion. (Sarkar et al., 2011)

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug
use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**
The Joint Commission’s 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission’s 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum’s 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, *The Physician’s Role in Medication Reconciliation*, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

**MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION**

**RATIONALITY:**
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)
All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #276 - SLEEP APNEA: ASSESSMENT OF SLEEP SYMPTOMS
RATIONALE:
Snoring occurs in up to 30-50% of adults over the age of 50, and subjective sleepiness occurs in more than 30% of adults (Kushida et al, 2005). Patients diagnosed with obstructive sleep apnea (OSA) should be regularly assessed for changes in symptoms, such as snoring and daytime sleepiness. Sleepiness can be quantified with validated tools such as the Epworth Sleepiness Scale (ESS). Increases in either of these conditions can be signs of poor adherence to treatment, improper mask fit, or indications that additional treatment, such as surgery or medication, is needed. Furthermore, the lack of improvement in sleepiness or snoring may be a reason to discontinue continuous positive airway pressure (CPAP) in follow-up after a therapeutic trial. Alternatively, an increase in CPAP may be implemented to improve snoring or daytime sleepiness. In evaluating daytime sleepiness, it is important to rule out sleep deprivation. Daytime sleepiness, especially with impairment of driving can be a sign of untreated OSA.

There has been considerable research on the impact of CPAP on subjective and objective daytime sleepiness. The majority of these studies have evaluated subjective sleepiness, principally using the (ESS). Of the placebo-controlled trials employing the ESS, most found that CPAP reduced subjective daytime sleepiness. (Gay et al, 2005)

CLINICAL RECOMMENDATION STATEMENTS:
CPAP is indicated for improving self-reported sleepiness in patients with obstructive sleep apnea (Level 1). This recommendation is based on 10 randomized controlled trials in which CPAP reduced sleepiness more than control procedures in patients with obstructive sleep apnea. The Epworth Sleepiness Scale was used in the vast majority of trials to assess subjective sleepiness. (Kushida et al, 2006)

MEASURE #277 - SLEEP APNEA: SEVERITY ASSESSMENT AT INITIAL DIAGNOSIS
RATIONALE:
For patients with obstructive sleep apnea (OSA), the desired outcome of treatment includes the resolution of the clinical signs and symptoms of OSA and the normalization of the apnea hypopnea index (AHI) and oxyhemoglobin saturation. Physicians treating patients with OSA should calculate the patient’s level of severity, which informs risk for other co-morbid conditions and complications. Numerous Level 1 and Level 2 studies have shown that the risk of cardiovascular complications is established for patients with an AHI over 15 (Kushida et al, 2005). Patients with a respiratory disturbance index equal to or greater than 15 are considered to have moderate to severe OSA and should be treated with positive airway pressure therapy.
CLINICAL RECOMMENDATION STATEMENTS:
Moderate sleep apnea is defined as having an RDI of equal to or greater than 15, but less than 30 episodes per hour of sleep; severe sleep apnea is defined as having an RDI equal to or greater than 30 episodes per hour of sleep. These patients are at higher risk for severe cardiovascular diseases and other co-morbid conditions (Kushida et al, 2006). Polysomnography is indicated for positive airway pressure (PAP) titration in patients with sleep related breathing disorders (Level 1). PSG with CPAP titration is appropriate for patients with any of the following results: a) an RDI of at least 15 per hour, regardless of the patient's symptoms; b) an RDI of at least 5 per hour in a patient with excessive daytime sleepiness. (Kushida et al, 2005)

MEASURE #278 - SLEEP APNEA: POSITIVE AIRWAY PRESSURE THERAPY PRESCRIBED
RATIONALE:
All patients with moderate to severe obstructive sleep apnea (OSA) should have an initial trial of nasal continuous positive air pressure (CPAP); Level 1 evidence also recommends that patients with severe OSA should have an initial trial of nasal CPAP because greater effectiveness has been shown with this intervention than with the use of other treatments (Kushida et al, 2006). Level 1 studies also show that CPAP eliminates respiratory disturbances, reducing the apnea hypopnea index (AHI). All of the 11 clinical trials that studied this outcome demonstrated that CPAP was superior to placebo, conservative management, and positional therapy. This effect was demonstrated during follow-up polysomnography (Gay et al, 2006). Treatment with CPAP must be based on a prior diagnosis of OSA established using an acceptable method of diagnosis.

CLINICAL RECOMMENDATION STATEMENTS:
CPAP is indicated for the treatment of moderate to severe OSA (Level 1). CPAP is recommended for the treatment of mild OSA (Level 2). CPAP is indicated for improving self-reported sleepiness in patients with OSA (Level 1). This recommendation is based on 10 randomized controlled trials in which CPAP reduced sleepiness more than control procedures in patients with OSA. CPAP is recommended for improving quality of life in patients with OSA. (Kushida et al, 2006) (Level 1 and Level 2 studies)

MEASURE #279 - SLEEP APNEA: ASSESSMENT OF ADHERENCE TO POSITIVE AIRWAY PRESSURE THERAPY
RATIONALE:
This recommendation is based on overwhelming evidence at all levels indicating patients with obstructive sleep apnea (OSA) overestimate their positive airway pressure use time. Level I and Level II studies indicate that objectively-measured nightly continuous positive airway pressure (CPAP) "time on" ranges from 3.5 hours/night in minimally symptomatic new patients to 7.1 hours/night in established users (Kushida et al, 2006). The success of any positive airway pressure device therapy depends primarily on patient adherence, which can be enhanced by education, proper mask/interface fit, frequent follow-up by the clinician and durable medical equipment provider, and finally, A.W.A.K.E. (Alert Well And Keeping Energetic) meetings (ICSI, 2007). When objective adherence is assessed and an intervention is employed – either in the clinic or via the telephone, use is increased. Meter reads (on the machines) or card reads provide a longitudinal assessment of use and prevent the potential for overuse of stimulant therapy and daytime testing of sleepiness with multiple sleep latency tests.

Numerous studies have shown that patient adherence to CPAP is low or over-estimated by patients. A 2006 study assessed OSA severity, continuous positive airway pressure adherence, and factors associated with CPAP adherence among a group of patients with OSA receiving care at a publicly-funded county hospital. The findings indicated that CPAP adherence was low, with women having a higher likelihood of non-adherence than men. When individuals without follow-up were assumed to be non-adherent, the overall compliance rate was 30.4%, and women were 1.72 (95% CI, 1.03-2.88) times more likely to be noncompliant than men, adjusting for race, marital status, and age (Joo et al, 2007). Another study by Kribbs et al (Level I) found that subjective and covertly monitored objective CPAP adherence were discordant and that OSA patients in the aggregate overestimate subjective CPAP adherence compared with objective adherence measurements obtained by microprocessor. Adherence was arbitrarily defined as ≥ 4 hours of CPAP usage for ≥ 70% of the nights monitored. Although 60% of patients subjectively reported
nightly use of CPAP for a mean of 106.9 days, only 16 of 35 (46%) were objectively using CPAP at least 4 hours per night on 70% of the nights. Patients over-estimated actual CPAP use by 69 ± 110 min. (Gay et al, 2005)

**CLINICAL RECOMMENDATION STATEMENTS:**
CPAP usage should be objectively monitored to help assure utilization (Level 1). Close follow-up for PAP usage and problems in patients with obstructive sleep apnea (OSA) by appropriately trained health care providers is indicated to establish effective utilization patterns and remediate problems, if needed. This recommendation is based on 61 studies that examined management paradigms and collected acceptance, utilization, and adverse events; 17 of these studies qualified as Level I. This is especially important during the first few weeks of PAP use and can prove to be beneficial for the longitudinal care of the patient. (Kushida et al, 2006)
DEMENTIA MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN DEMENTIA MEASURES GROUP:
#47 Care Plan
#134 Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan
#280 Dementia: Staging of Dementia
#281 Dementia: Cognitive Assessment
#282 Dementia: Functional Status Assessment
#283 Dementia: Neuropsychiatric Symptom Assessment
#284 Dementia: Management of Neuropsychiatric Symptoms
#286 Dementia: Counseling Regarding Safety Concerns
#287 Dementia: Counseling Regarding Risks of Driving
#288 Dementia: Caregiver Education and Support

INSTRUCTIONS FOR REPORTING:
- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

    G8902: I intend to report the Dementia Measures Group

- Report the patient sample method:

  20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Dementia Measures Group are all patients regardless of age, with a specific diagnosis of dementia accompanied by a specific patient encounter:

  One of the following diagnosis codes indicating Dementia:
  ICD-10-CM: A52.17, F01.50, F01.51, F02.80, F02.81, F03.90, F03.91, F05, F06.8, G30.0, G30.1, G30.8, G30.9, G31.01, G31.09, G31.83

  Accompanied by:

  One of the following patient encounter codes: 90791, 90792, 90832, 90834, 90837, 96116, 96118, 96119, 96120, 96150, 96151, 96152, 96154, 97003, 97004, 99201, 99202, 99203, 99204, 99205, 99206, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

- To satisfactorily report the Dementia Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #47 need only be reported on patients 65 years and older.

- Measure #134 need only be reported on patients 12 years and older without an active diagnosis of Depression or a diagnosed Bipolar Disorder.

- Measure #281 need only be reported with one of the following patient encounter codes: 90791, 90792, 90832, 90834, 90837, 96116, 96118, 96120, 97003, 97004, 99201, 99202, 99203, 99204, 99205,
99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

- Instructions for qualifying numerator option reporting for each of the measures within the Dementia Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  **Composite QDC G8761:** All quality actions for the applicable measures in the Dementia Measures Group have been performed for this patient

- Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
**Measure #47 (NQF 0326): Care Plan -- National Quality Strategy Domain: Communication and Care Coordination**

**DESCRIPTION:**
Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

**NUMERATOR:**
Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

- **Numerator Instructions:** If patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, report 1124F.

- **Definition:**
  Documentation that Patient did not Wish or was not able to Name a Surrogate Decision Maker or Provide an Advance Care Plan – May also include, as appropriate, the following:
  - That the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship.

- **Numerator Note:** The CPT Category II codes used for this measure indicate: Advance Care Planning was discussed and documented. The act of using the Category II codes on a claim (or equivalent medical record documentation) indicates the provider confirmed that the Advance Care Plan was in the medical record (that is, at the point in time the code was assigned, the Advance Care Plan in the medical record was valid) or that advance care planning was discussed. The codes (or equivalent medical record documentation) are required annually to ensure that the provider either confirms annually that the plan in the medical record is still appropriate or starts a new discussion.

- **Numerator Options:**
  - **Performance Met:** Advance Care Planning discussed and documented; advance care plan or surrogate decision maker documented in the medical record (1123F)
  - **OR**
    - **Performance Met:** Advance Care Planning discussed and documented in the medical record; patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan (1124F)
  - **OR**
    - **Performance Not Met:** Advance care planning not documented, reason not otherwise specified (1123F with 8P)
DESCRIPTION:
Percentage of patients aged 12 years and older screened for clinical depression on the date of the encounter using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen.

NUMERATOR:
Patients screened for clinical depression on the date of the encounter using an age appropriate standardized tool AND, if positive, a follow-up plan is documented on the date of the positive screen.

Numerator Instructions: The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record. The depression screening must be reviewed and addressed in the office of the provider filing the code on the date of the encounter.

Definitions:
Screening – Completion of a clinical or diagnostic tool used to identify people at risk of developing or having a certain disease or condition, even in the absence of symptoms.

Standardized Depression Screening Tool – A normalized and validated depression screening tool developed for the patient population in which it is being utilized. The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record.

Examples of depression screening tools include but are not limited to:
- **Adolescent Screening Tools (12-17 years)**
  - Patient Health Questionnaire for Adolescents (PHQ-A), Beck Depression Inventory-Primary Care Version (BDI-PC), Mood Feeling Questionnaire (MFQ), Center for Epidemiologic Studies Depression Scale (CES-D), and PRIME MD-PHQ2
- **Adult Screening Tools (18 years and older)**
  - Patient Health Questionnaire (PHQ-9), Beck Depression Inventory (BDI or BDI-II), Center for Epidemiologic Studies Depression Scale (CES-D), Depression Scale (DEPS), Duke Anxiety-Depression Scale (DADS), Geriatric Depression Scale (GDS), Cornell Scale Screening, and PRIME MD-PHQ2

Follow-Up Plan – Documented follow-up for a positive depression screening **must** include one or more of the following:
- Additional evaluation for depression
- Suicide Risk Assessment
- Referral to a practitioner who is qualified to diagnose and treat depression
- Pharmacological interventions
- Other interventions or follow-up for the diagnosis or treatment of depression

Not Eligible – A patient is not eligible if one or more of the following conditions are documented:
- Patient refuses to participate
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status
- Situations where the patient’s functional capacity or motivation to improve may impact the accuracy of results of standardized depression assessment tools. For example: certain court appointed cases or cases of delirium
- Patient has an active diagnosis of Depression
- Patient has a diagnosed Bipolar Disorder
NUMERATOR NOTE: The follow-up plan must be related to a positive depression screening, example: “Patient referred for psychiatric evaluation due to positive depression screening.”

Numerator Options:

Performance Met: Screening for clinical depression is documented as being positive AND a follow-up plan is documented (G8431)

OR

Performance Met: Screening for clinical depression is documented as negative, a follow-up plan is not required (G8510)

OR

Other Performance Exclusion: Screening for clinical depression not documented, documentation stating the patient is not eligible (G8433)

OR

Other Performance Exclusion: Screening for clinical depression documented as positive, a follow-up plan not documented, documentation stating the patient is not eligible (G8940)

OR

Performance Not Met: Clinical depression screening not documented, reason not given (G8432)

OR

Performance Not Met: Screening for clinical depression documented as positive, follow-up plan not documented, reason not given (G8511)
Measure #280: Dementia: Staging of Dementia -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients, regardless of age, with a diagnosis of dementia whose severity of dementia was classified as mild, moderate or severe at least once within a 12 month period

NUMERATOR:
Patients whose severity of dementia was classified as mild, moderate or severe at least once within a 12 month period

Numerator Instructions: Dementia severity can be assessed using one of a number of available valid and reliable instruments available from the medical literature. Examples include, but are not limited to:
- Global Deterioration Scale (GDS)
- Functional Assessment Staging Tool (FAST)
- Clinical Dementia Rating (CDR)
- Dementia Severity Rating Scale
- Mini-Mental State Examination (MMSE) [Note: While simple and quick to administer, the MMSE is a blunt instrument for staging Alzheimer’s disease. The MMSE has not been well validated for non-Alzheimer’s dementias.]
- Formal Neuropsychological Evaluation

Definitions:
Mild dementia - Can be classified quantitatively as MMSE score of > 18, GDS or FAST stage 4, CDR of 1; qualitatively as being likely to have difficulty with balancing a checkbook, preparing a complex meal, or managing a complicated medication schedule. (APA, 2007)
Moderate dementia - Can be classified quantitatively as MMSE score of 10–18, GDS or FAST stages 5 and 6, CDR of 2; qualitatively as experiencing difficulties with simpler food preparation, household cleanup, and yard work and requiring assistance with some aspects of self-care (e.g., picking out the proper clothing to wear). (APA, 2007)
Severe dementia - Can be classified quantitatively as MMSE score of < 10, GDS or FAST stages 6 and 7, CDR of 3; qualitatively as requiring considerable or total assistance with personal care, such as dressing, bathing, and toileting. (APA, 2007)

Numerator Note: The proposed scoring cut-offs listed above are offered only as a guide and are quoted verbatim from the referenced clinical guideline. The scoring and appropriate severity cut-offs for any of these instruments must be interpreted in the context of the patient’s age, education, and ethnicity.

Numerator Options:
Performance Met: Dementia severity classified, mild (1490F)
OR
Performance Met: Dementia severity classified, moderate (1491F)
OR
Performance Met: Dementia severity classified, severe (1493F)
OR
Performance Not Met: Dementia severity not classified, reason not otherwise specified (1490F with 8P)
Measure #281: Dementia: Cognitive Assessment – National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients, regardless of age, with a diagnosis of dementia for whom an assessment of cognition is performed and the results reviewed at least once within a 12 month period

NUMERATOR:
Patients for whom an assessment of cognition is performed and the results reviewed at least once within a 12 month period

Numerator Instructions: Cognition can be assessed by the clinician during the patient’s clinical history. Cognition can also be assessed by direct examination of the patient using one of a number of instruments, including several originally developed and validated for screening purposes. This can also include, where appropriate, administration to a knowledgeable informant. Examples include, but are not limited to:
- Blessed Orientation-Memory-Concentration Test (BOMC)
- Montreal Cognitive Assessment (MoCA)
- St. Louis University Mental Status Examination (SLUMS)
- Mini-Mental State Examination (MMSE) [Note: The MMSE has not been well validated for non-Alzheimer’s dementias.]
- Short Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE)
- Ascertained Dementia 8 (AD8) Questionnaire
- Minimum Data Set (MDS) Brief Interview for Mental Status (BIMS) [Note: Validated for use with nursing home patients only]
- Formal neuropsychological evaluation

Numerator Options:

**Performance Met:**
Cognition assessed and reviewed (1494F)

**Medical Performance Exclusion:**
Documentation of medical reason(s) for not assessing cognition (eg, patient with very advanced stage dementia, other medical reason) (1494F with 1P)

**Patient Performance Exclusion:**
Documentation of patient reason(s) for not assessing cognition (1494F with 2P)

**Performance Not Met:**
Cognition not assessed and reviewed, reason not otherwise specified (1494F with 8P)
Measure #282: Dementia: Functional Status Assessment – National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients, regardless of age, with a diagnosis of dementia for whom an assessment of functional status is performed and the results reviewed at least once within a 12 month period

NUMERATOR:
Patients for whom an assessment of functional status is performed and the results reviewed at least once within a 12 month period

Numerator Instructions: Functional status can be assessed by direct examination of the patient or knowledgeable informant. An assessment of functional status should include, at a minimum, an evaluation of the patient's ability to perform instrumental activities of daily living (IADL) and basic activities of daily living (ADL). Functional status can also be assessed using one of a number of available valid and reliable instruments available from the medical literature. Examples include, but are not limited to:
- Lawton IADL Scale
- Barthel ADL Index
- Katz Index of Independence in ADL

Numerator Options:
Performance Met: Functional status for dementia assessed and results reviewed (1175F)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for not assessing and reviewing functional status for dementia (eg, patient is severely impaired and caregiver knowledge is limited, other medical reason) (1175F with 1P)

OR

Performance Not Met: Functional status for dementia not assessed and results not reviewed, reason not otherwise specified (1175F with 8P)
Measure #283: Dementia: Neuropsychiatric Symptom Assessment -- National Quality Strategy
Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients, regardless of age, with a diagnosis of dementia and for whom an assessment of neuropsychiatric symptoms is performed and results reviewed at least once in a 12 month period.

NUMERATOR:
Patients for whom an assessment of neuropsychiatric symptoms is performed and results reviewed at least once in a 12 month period.

Numerator Instructions: Neuropsychiatric symptoms can be assessed by direct examination of the patient or knowledgeable informant.

Examples of reliable and valid instruments that are commonly used in research settings and that can be used to assess behavior include, but are not limited to:
- Dementia Signs and Symptoms (DSS) Scale
- Neuropsychiatric Inventory (NPI)

The assessment of behavioral status may include the assessment of Behavioral and Psychological Symptoms of Dementia (BPSD). For patients residing in nursing homes, it may include an assessment of the behavioral symptom items from the Minimum Data Set (MDS).

The following is a non-exhaustive list of dimensions (based on items included in available validated instruments) that may be evaluated during an assessment of neuropsychiatric symptoms:

Activity disturbances:
- agitation
- wandering
- purposeless hyperactivity
- verbal or physical aggressiveness
- resistiveness with care
- apathy
- impulsiveness
- socially inappropriate behaviors
- appetite
- eating disturbances
- sleep problems
- diurnal/sleep-wake cycle disturbances
- repetitive behavior

Mood disturbances:
- anxiety
- dysphoria
- euphoria
- irritability
- mood lability/fluctuations

Thought and perceptual disturbances:
- having fixed false beliefs (delusions)
- hearing or seeing non-present entities (hallucinations)
- paranoia
Numerator Options:

Performance Met: Neuropsychiatric symptoms assessed and results reviewed (1181F)

OR

Performance Not Met: Neuropsychiatric symptoms not assessed and results not reviewed, reason not otherwise specified (1181F with 8P)
Measure #284: Dementia: Management of Neuropsychiatric Symptoms -- National Quality
Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients, regardless of age, with a diagnosis of dementia who have one or more neuropsychiatric
symptoms who received or were recommended to receive an intervention for neuropsychiatric symptoms within a 12
month period

NUMERATOR:
Patients who received or were recommended to receive an intervention for neuropsychiatric symptoms within a 12
month period

Numerator Options:
Performance Met:
One or more neuropsychiatric symptoms (G8947)
AND
Neuropsychiatric intervention ordered (4525F)
OR
Neuropsychiatric intervention received (4526F)
OR
Other Performance Exclusion:
No neuropsychiatric symptoms (G8948)
OR
Performance Not Met:
One or more neuropsychiatric symptoms (G8947)
AND
Neuropsychiatric intervention not ordered, reason not otherwise specified (4525F with 8P)
OR
Neuropsychiatric intervention not received, reason not otherwise specified (4526F with 8P)
Measure #286: Dementia: Counseling Regarding Safety Concerns -- National Quality Strategy

Domain: Patient Safety

**DESCRIPTION:**
Percentage of patients, regardless of age, with a diagnosis of dementia or their caregiver(s) who were counseled or referred for counseling regarding safety concerns within a 12 month period

**NUMERATOR:**
Patients or their caregiver(s) who were counseled or referred for counseling regarding safety concerns within a 12 month period

**Numerator Instructions:** Counseling should include a discussion with the patient and their caregiver(s) regarding one or more of the following common safety concerns and potential risks to the patient. When appropriate, it should also include a recommendation or referral for a home safety evaluation.

*Note: For nursing home patients, different safety concerns might apply.*

A number of organizations have developed educational materials that are recommended to aid implementation of the measure. These materials/tools include:


**Definitions:**

**Caregiver(s)** - Person(s) who provide care to those who need supervision or assistance in illness or disability. They may provide the care in the home, in a hospital, or in an institution. Although caregiver(s) include trained medical, nursing, and other health personnel, the concept also refers to parents, spouses, or other family members, friends, members of the clergy, teachers, social workers, fellow patients.

**Safety Concerns** - Safety concerns include, but are not limited to:
- Fall risk
- Gait/balance
- Medication management
- Financial management
- Home safety risks that could arise from cooking or smoking
- Physical aggression posing threat to self, family caregiver, or others
- Wandering
- Access to firearms or other weapons
- Access to potentially dangerous materials
- Being left alone in home or locked in room
- Inability to respond rapidly to crisis/household emergencies
- Driving
- Operation of hazardous equipment
- Suicidality
- Abuse or neglect

**Numerator Options:**

Performance Met: Safety counseling for dementia provided (6101F)

OR

Performance Met: Safety counseling for dementia ordered (6102F)
Medical Performance Exclusion: Documentation of medical reason(s) for not providing counseling regarding safety concerns (e.g., patient in palliative care, other medical reason) (6101F with 1P)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for not ordering safety counseling (e.g., patient in palliative care, other medical reason) (6102F with 1P)

OR

Performance Not Met: Safety counseling for dementia not provided, reason not otherwise specified (6101F with 8P)

OR

Performance Not Met: Safety counseling for dementia not ordered, reason not otherwise specified (6102F with 8P)
Measure #287: Dementia: Counseling Regarding Risks of Driving -- National Quality Strategy
Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients, regardless of age, with a diagnosis of dementia or their caregiver(s) who were counseled regarding the risks of driving and the alternatives to driving at least once within a 12 month period.

NUMERATOR:
Patients or their caregiver(s) who were counseled regarding the risks of driving and the alternatives to driving at least once within a 12 month period.

Numerator Instructions: One resource that includes patient and caregiver educational materials that can be used to aid implementation of the measure is the Physician's Guide to Assessing and Counseling Older Drivers, developed by the American Medical Association in cooperation with the National Highway Traffic Safety Administration. This document is available on the AMA website.

Definition:
Caregiver(s) - Person(s) who provide care to those who need supervision or assistance in illness or disability. They may provide the care in the home, in a hospital, or in an institution. Although caregiver(s) include trained medical, nursing, and other health personnel, the concept also refers to parents, spouses, or other family members, friends, members of the clergy, teachers, social workers, fellow patients.

Numerator Options:
Performance Met: Counseling provided regarding risks of driving and the alternatives to driving (6110F)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for not counseling regarding the risks of driving (eg, patient is no longer driving, other medical reason) (6110F with 1P)

OR

Performance Not Met: Counseling regarding risks of driving and alternatives to driving not performed, reason not otherwise specified (6110F with 8P)
### Measure #288: Dementia: Caregiver Education and Support -- National Quality Strategy Domain: Communication and Care Coordination

**DESCRIPTION:**
Percentage of patients, regardless of age, with a diagnosis of dementia whose caregiver(s) were provided with education on dementia disease management and health behavior changes AND referred to additional resources for support within a 12 month period

**NUMERATOR:**
Patients whose caregiver(s) were provided with education on dementia disease management and health behavior changes AND referred to additional resources for support within a 12 month period

**Numerator Instructions:** There are a number of assessment tools available for the caregiver. These should be considered as an integral component of comprehensive caregiver education and support. The American Medical Association has developed a Caregiver Health Self-assessment Questionnaire to help caregivers analyze their own behavior and health risks and, with their physician's help, make decisions that will benefit both the caregiver and the patient. This questionnaire is available on the AMA website.

**Definitions:**
- **Caregiver(s) –** Person(s) who provide care to those who need supervision or assistance in illness or disability. They may provide the care in the home, in a hospital, or in an institution. Although caregiver(s) include trained medical, nursing, and other health personnel, the concept also refers to parents, spouses, or other family members, friends, members of the clergy, teachers, social workers, fellow patients.
- **Education –** Education should also include advising the caregiver that he or she is at “increased risk of serious illness (including circulatory and heart conditions and respiratory disease and hypertension), increased physician visits and use of prescription medications, emotional strain, anxiety, and depression.”

**Numerator Options:**

- **Performance Met:**
  Caregiver provided with education and referred to additional resources for support **(4322F)**

- **Medical Performance Exclusion:**
  Documentation of medical reason(s) for not providing the caregiver with education on disease management and health behavior changes or referring to additional sources for support (eg, patient does not have a caregiver, other medical reason) **(4322F with 1P)**

- **Performance Not Met:**
  Caregiver not provided with education and not referred to additional resources for support, reason not otherwise specified **(4322F with 8P)**
DEMENTIA MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #47 – CARE PLAN

RATIONALE:
It is essential that the patient’s wishes regarding medical treatment be established as much as possible prior to incapacity. The Work Group has determined that the measure should remain as specified with no required timeframe based on a review of the literature. Studies have shown that people do change their preferences often with regard to advanced care planning, but it primarily occurs after a major medical event or other health status change. In the stable patient, it would be very difficult to define the correct interval. It was felt by the Work Group that the error rate in simply not having addressed the issue at all is so much more substantial (Teno, 1997) than the risk that an established plan has become outdated that we should not define a specific timeframe at this time. As this measure is tested and reviewed, we will continue to evaluate if and when a specific timeframe should be included.

CLINICAL RECOMMENDATION STATEMENTS:
Advance directives are designed to respect patient’s autonomy and determine his/her wishes about future life-sustaining medical treatment if unable to indicate wishes. Key interventions and treatment decisions to include in advance directives are: resuscitation procedures, mechanical respiration, chemotherapy, radiation therapy, dialysis, simple diagnostic tests, pain control, blood products, transfusions, and intentional deep sedation.

Oral statements
- Conversations with relatives, friends, and clinicians are most common form; should be thoroughly documented in medical record for later reference.
- Properly verified oral statements carry same ethical and legal weight as those recorded in writing.

Instructional advance directives (DNR orders, living wills)
- Written instructions regarding the initiation, continuation, withholding, or withdrawal of particular forms of life-sustaining medical treatment.
- May be revoked or altered at any time by the patient.
- Clinicians who comply with such directives are provided legal immunity for such actions.

Durable power of attorney for health care or health care proxy
- A written document that enables a capable person to appoint someone else to make future medical treatment choices for him or her in the event of decisional incapacity. (AGS)

The National Hospice and Palliative Care Organization provides the Caring Connection web site, which provides resources and information on end-of-life care, including a national repository of state-by-state advance directives.

MEASURE #134 - PREVENTIVE CARE AND SCREENING: SCREENING FOR CLINICAL DEPRESSION AND FOLLOW-UP PLAN

RATIONALE:
The World Health Organization (WHO), as seen in Pratt & Brody (2008), found that major depression was the leading cause of disability worldwide. Depression causes suffering, decreases quality of life, and causes impairment in social and occupational functioning. It is associated with increased health care costs as well as with higher rates of many chronic medical conditions. Studies have shown that a higher number of depression symptoms are associated with poor health and impaired functioning, whether or not the criteria for a diagnosis of major depression are met. Persons 40-59 years of age had higher rates of depression than any other age group. Persons 12-17, 18-39 and 60 years of age and older had similar rates of depression. Depression was more common in females than in males. Non-Hispanic black persons had higher rates of depression than non-Hispanic white persons. In the 18-39 and 40-59 age groups, those with income below the federal poverty level had higher rates of depression than those with higher income. Among persons 12-17 and 60 years of age and older, rates of depression did not vary significantly by poverty status.
Overall, approximately 80% of persons with depression reported some level of difficulty in functioning because of their depressive symptoms. In addition, 35% of males and 22% of females with depression reported that their depressive symptoms make it very or extremely difficult for them to work, get things done at home, or get along with other people. More than one-half of all persons with mild depressive symptoms also reported some difficulty in daily functioning attributable to their symptoms.

15–20 percent of adults older than age 65 in the United States have experienced depression (Geriatric Mental Health Foundation, 2008). 7 million adults aged 65 years and older are affected by depression (Steinman, 2007). Chronically ill Medicare beneficiaries with accompanying depression have significantly higher health care costs than those with chronic diseases alone (Unützer, 2009). People aged 65 years and older accounted for 16 percent of suicide deaths in 2004 (Centers for Disease Control and Prevention, 2007).

The negative outcomes associated with early onset depression, make it crucial to identify and treat depression in its early stages. As reported in Borner (2010), a study conducted by the World Health Organization (WHO) concluded that in North America, primary care and family physicians are likely to provide the first line of treatment for depressive disorders. Others consistently report a 10% prevalence rate of depression in primary care patients. But studies have shown that primary care physicians fail to recognize up to 50% of depressed patients, purportedly because of time constraints and a lack of brief, sensitive, easy-to-administer psychiatric screening instruments. Coyle et al. (2003), suggested that the picture is more grim for adolescents, and that more than 70% of children and adolescents suffering from serious mood disorders go unrecognized or inadequately treated. Healthy People 2020 recommends routine screening for mental health problems as a part of primary care for both children and adults (U.S. Department of Health and Human Services, 2014).

Major depressive disorder (MDD) is a debilitating condition that has been increasingly recognized among youth, particularly adolescents. The prevalence of current or recent depression among children is 3% and among adolescents is 6%. The lifetime prevalence of MDD among adolescents may be as high as 20%. Adolescent-onset MDD is associated with an increased risk of death by suicide, suicide attempts, and recurrence of major depression by young adulthood. MDD is also associated with early pregnancy, decreased school performance, and impaired work, social, and family functioning during young adulthood (Williams et al., 2009). Every fifth adolescent may have a history of depression by age 18. The increase in the onset of depression occurs around puberty. According to Zalsman et al., (2006) as reported in Borner et al. (2010), depression ranks among the most commonly reported mental health problems in adolescent girls.

The economic burden of depression is substantial for individuals as well as society. Costs to an individual may include suffering, possible side effects from treatment, fees for mental health and medical visits and medications, time away from work and lost wages, transportation, and reduced quality of personal relationships. Costs to society may include loss of life, reduced productivity (because of both diminished capacity while at work and absenteeism from work), and increased costs of mental health and medical care. In 2000, the United States spent an estimated $83.1 billion in direct and indirect costs of depression (USPSTF, 2009).

**CLINICAL RECOMMENDATION STATEMENTS:**

**Adolescent Recommendation (12-18 years)**
The USPSTF recommends screening of adolescents (12-18 years of age) for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up (AHRQ, 2010, p.141).

Clinicians and health care systems should try to consistently screen adolescents ages 12-18 for major depressive disorder, but only when systems are in place to ensure accurate diagnosis, careful selection of treatment, and close follow-up (ICSI, 2013, p.16).

**Adult Recommendation (18 years and older)**
The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up (AHRQ, 2010, p.136).

A system that has embedded the elements of best practice and has capacity to effectively manage the volume should consider routine screening of all patients, based on the recommendations of the U.S. Preventive Services Task Force (ICSI, 2013, p.7). Clinicians should use a standardized instrument to screen for depression if it is suspected based on risk factors or presentation. Clinicians should assess and treat for depression in patients with some comorbidities. Clinicians should acknowledge the impact of culture and cultural differences on physician and mental health. Clinicians should screen and monitor depression in pregnant and post-partum women (ICSI, 2013, p.4).

MEASURE #280 - DEMENTIA: STAGING OF DEMENTIA
RATIONALE:
Dementia is characterized by continued and progressive impairment in cognition and function including the evolution of symptoms over time. (APA, 2007)

The treatment varies throughout the disease course. (APA, 2007)

Patients with dementia, therefore, require assessment of disease severity and subsequent treatment specific and appropriate to their current stage of disease. (APA, 2007)

Early stage patients, for example, have special needs and can and should be involved in care planning and referred to community resources. (California Workgroup on Guidelines for Alzheimer’s Disease Management, 2008)

Care for late stage patients may focus on improving the quality of life for patients and caregivers, maintaining optimal function and providing maximum comfort. (Third Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 2008)

CLINICAL RECOMMENDATION STATEMENTS:
Progressive dementias are generally staged globally according to the level of cognitive and functional impairment, and the same categories may be used to describe the degree of severity of any dementia. However, the staging criteria have not been well validated for non-Alzheimer's dementias. Specific functional staging (FAST staging) has also been developed, is widely used, and can be very useful in tracking the course of Alzheimer's disease and other dementias. The CDR is a commonly used scale to stage dementia severity. The Global Deterioration Scale (GDS) distinguishes three stages in this range. (APA, 2007)

Individuals with "mild" dementia (MMSE score of >18, GDS or FAST stage 4, CDR of 1) are likely to have difficulties with balancing a checkbook, preparing a complex meal, or managing a difficult medication schedule. Those with "moderate" impairment (MMSE score of 10–18, GDS or FAST stages 5 and 6, CDR of 2) also have difficulties with simpler food preparation, household cleanup, and yard work and may require assistance with some aspects of self-care (e.g., picking out the proper clothing to wear). Those whose dementia is “severe” (MMSE score of <10, GDS or FAST stages 6 and 7, CDR of 3) require considerable or total assistance with personal care, such as dressing, bathing, and toileting. Research has shown that measurable cognitive abilities remain throughout the course of severe dementia. In the terminal phase, patients become bed bound, develop contractures, require constant care, and may be susceptible to accidents and infectious diseases, which ultimately prove fatal. (APA, 2007)

MEASURE #281 – DEMENTIA: COGNITIVE ASSESSMENT
RATIONALE:
Dementia is often characterized by the gradual onset and continuing cognitive decline in one or more domains including memory, executive function, language, judgment, and spatial abilities. (APA, 2007) Cognitive deterioration represents a major source of morbidity and mortality and poses a significant burden on affected individuals and their caregivers. (NIH, 2010) Although cognitive deterioration follows a different course depending on the type of
dementia, significant rates of decline have been reported. For example, one study found that the annual rate of decline for Alzheimer’s disease patients was more than four times that of older adults with no cognitive impairment. (Wilson et al., 2010) Nevertheless, measurable cognitive abilities remain throughout the course of dementia. (APA, 2007) Initial and ongoing assessments of cognition are fundamental to the proper management of patients with dementia. These assessments serve as the basis for identifying treatment goals, developing a treatment plan, monitoring the effects of treatment, and modifying treatment as appropriate.

CLINICAL RECOMMENDATION STATEMENTS:
Ongoing assessment includes periodic monitoring of the development and evolution of cognitive and noncognitive psychiatric symptoms and their response to intervention (Category I). Both cognitive and noncognitive neuropsychiatric and behavioral symptoms of dementia tend to evolve over time, so regular monitoring allows detection of new symptoms and adaptation of treatment strategies to current needs...Cognitive symptoms that almost always require assessment include impairments in memory, executive function, language, judgment, and spatial abilities. It is often helpful to track cognitive status with a structured simple examination. (APA, 2007)

Conduct and document an assessment and monitor changes in cognitive status using a reliable and valid instrument. Cognitive status should be reassessed periodically to identify sudden changes, as well as to monitor the potential beneficial or harmful effects of environmental changes, specific medications, or other interventions. Proper assessment requires the use of a standardized, objective instrument that is relatively easy to use, reliable (with less variability between different assessors), and valid (results that would be similar to gold-standard evaluations). (California Workgroup on Guidelines for Alzheimer’s Disease Management, 2008)

MEASURE #282 – DEMENTIA: FUNCTIONAL STATUS ASSESSMENT
RATIONALE:

CLINICAL RECOMMENDATION STATEMENTS:
A detailed assessment of functional status may also aid the clinician in documenting and tracking changes over time as well as providing guidance to the patient and caregivers. Functional status is typically described in terms of the patient’s ability to perform instrumental activities of daily living such as shopping, writing checks, basic housework, and activities of daily living such as dressing, bathing, feeding, transferring, and maintaining continence. These regular assessments of recent cognitive and functional status provide a baseline for assessing the effect of any intervention, and they improve the recognition and treatment of acute problems, such as delirium. (APA, 2007)

Conduct and document an assessment and monitor changes in daily functioning, including feeding, bathing, dressing, mobility, toileting, continence, and ability to manage finances and medications...Functional assessment includes evaluation of physical, psychological, and socioeconomic domains. Physical functioning may focus on basic activities of daily living (ADLs) that include feeding, bathing, dressing, mobility, and toileting. Assessment of instrumental (or intermediate) activities of daily living (IADLs) addresses more advanced self-care activities, such as shopping, cooking, and managing finances and medications. Standardized assessment instruments such as the Barthel or Katz indices can provide information on the patient’s capacity for self-care and independent living. Proxies
or patient surrogates can complete a number of these instruments when necessary. The initial assessment of functional abilities is important to determine a baseline to which future functional deficits may be compared. (California Workgroup on Guidelines for Alzheimer's Disease Management, 2008)

MEASURE #283 – DEMENTIA: NEUROPSYCHIATRIC SYMPTOM ASSESSMENT

RATIONALE:

CLINICAL RECOMMENDATION STATEMENTS:
It is important for the [clinician] treating a patient with dementia to regularly assess cognitive deficits or behavioral difficulties that potentially pose a danger to the patient or others. (APA, 2007)

Conduct and document an assessment and monitor changes in behavioral symptoms, psychotic symptoms, or depression. (California Workgroup on Guidelines for Alzheimer's Disease Management, 2008)

For mild to moderate Alzheimer's disease
Assessment of patients with mild to moderate AD [Alzheimer's Disease] should include measures of behavior and other neuropsychiatric symptoms. (Grade B, Level 3) (Third Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 2008)

For severe Alzheimer's disease
Assessment should include cognition (eg, MMSE), function, behaviour, medical status, nutrition, safety and caregiver health. (Grade B, Level 3) (Third Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 2008)

MEASURE #284 – DEMENTIA: MANAGEMENT OF NEUROPSYCHIATRIC SYMPTOMS

RATIONALE:
Nonpharmacologic interventions should be considered in all cases and in some will be the mainstay of management. Examples of approaches that may be useful include behavioral management for depression, education programs for caregivers and staff to teach them how to recognize, manage, and sometimes prevent behavioral problems, stress reduction for caregivers, and, for patients living at home, enrollment in adult day programs offering structured activities and social stimulation. The evidence evaluating non-pharmacological interventions varies considerably in quality and amount, but broadly supports an individualized approach that includes one or more such interventions. A management plan that assesses the severity and intrusiveness of problematic behaviors may assist clinicians in determining what pharmacologic or non-pharmacologic interventions might be appropriate. (Lawlor B. J Clin Psychiatry. 2004;65(Suppl 11):5–10.) Mild forms of neuropsychiatric symptoms may be alleviated with psychosocial or environmental interventions. For aggressiveness, presentations of psychosis, or agitation, pharmacologic approaches may be more appropriate. (Sink K et al. JAMA. 2005;293:596–608.) If pharmacologic approaches are necessary, they should be administered at the lowest effective dose and their use should be reevaluated and their benefit documented on an ongoing basis.

**CLINICAL RECOMMENDATION STATEMENTS:**

**For mild to moderate Alzheimer’s disease**

The management of BPSD [Behavioral and Psychological Symptoms of Dementia] should include a careful documentation of behaviors and identification of target symptoms, a search for potential triggers or precipitants, recording of the consequences of the behavior, an evaluation to rule out treatable or contributory causes, and consideration of the safety of the patient, their caregiver, and others in their environment. (Grade B, Level 3) (Third Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 2008)

**For severe Alzheimer’s disease**

The management of BPSD should begin with appropriate assessments, diagnosis, and identification of target symptoms and consideration of safety of the patient, their caregiver and others in their environment. (Grade B, Level 3) (Third Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 2008)

There are no fully comprehensive consensus guidelines for use of specific non-pharmacological approaches to neuropsychiatric symptoms. Patient heterogeneity, variations in care settings, and the broad range of non-pharmacological interventions having some empirical support impede uniform generalization. However, the following evidence statements serve as the evidence to support the measure and are quoted verbatim from the referenced clinical guidelines.

Nonpharmacologic interventions should be initiated first. Approaches that may be useful for severe Alzheimer disease include behavioral management for depression, and education programs for caregivers and staff to teach them how to recognize behavioral problems and to teach them behavior-modification techniques. Music therapy and controlled multisensory stimulation (Snoezelen) are useful during treatment sessions, but longer-term benefits have not been demonstrated. (Grade B, Level 1) (Third Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 2008)

Except for emergency situations, non-pharmacological strategies are the preferred first-line treatment approach for behavioral problems. Medications should be used only as a last resort, if non-pharmacological approaches prove unsuccessful and they are clinically indicated. (California Workgroup on Guidelines for Alzheimer’s Disease Management, 2008)

Pharmacologic therapies should be initiated concurrently with nonpharmacologic interventions in the presence of severe depression, psychosis or aggression that puts the patient or others at risk of harm. (Grade B, Level 3) (Third Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 2008)
MEASURE #286 – DEMENTIA: COUNSELING REGARDING SAFETY CONCERNS

RATIONALE:
The vast majority (87%) of individuals with Alzheimer’s disease are cared for at home by family members. (“Alz Assoc, 2009) “As the disease progresses however, physical features of the home environment may present as a safety hazard or barrier to performing activities of daily living, particularly at the moderate stage of the disease process.” (Gitlin LN et al. Disabil Rehabil. 2002, Vol. 24, No. 1-3, Pages 59-71.) Safety concerns should be addressed with patients and their caregivers throughout the course of the disease.

CLINICAL RECOMMENDATION STATEMENTS:
Recommended assessments include evaluation of suicidality, dangerousness to self and others, and the potential for aggression, as well as evaluation of living conditions, safety of the environment, adequacy of supervision, and evidence of neglect or abuse (Category I). Important safety issues in the management of patients with dementia include interventions to decrease the hazards of wandering and recommendations concerning activities such as cooking, driving, hunting, and the operation of hazardous equipment. Caregivers should be referred to available books [and other materials] that provide advice and guidance about maximizing the safety of the environment for patients with dementia...As patients become more impaired, they are likely to require more supervision to remain safe, and safety issues should be addressed as part of every evaluation. Families should be advised about the possibility of accidents due to forgetfulness (eg, fires while cooking), of difficulties coping with household emergencies, and of the possibility of wandering. Family members should also be advised to determine whether the patient is handling finances appropriately and to consider taking over the paying of bills and other responsibilities. At this stage of the disease [ie, moderately impaired patients], nearly all patients should not drive. (APA, 2007)

Safety issues such as driving, fall risk, medication management, environmental hazards, wandering, and access to firearms need to be discussed periodically with the patient and caregiver. Safety concerns typically focus on three risks in particular: falling, wandering, and driving. (California Workgroup on Guidelines for Alzheimer’s Disease Management, 2008)

For mild to moderate Alzheimer’s disease
Assess for safety risks (eg, driving, financial management, medication management, home safety risks that could arise from cooking or smoking, potentially dangerous behaviours such as wandering). (Canadian Consensus Conference on Diagnosis and Treatment of Dementia, 2008)

MEASURE #287 – DEMENTIA: COUNSELING REGARDING RISKS OF DRIVING

RATIONALE:
Motor vehicle-related injuries are a leading cause of injury deaths in adults over 65. (AMA Physician’s Guide to Assessing and Counseling Older Drivers, 2010) Per mile driven, drivers age 75 and older are involved in significantly more motor vehicle crashes than middle-aged drivers. (AMA Physician’s Guide to Assessing and Counseling Older Drivers, 2010) Dementia has a negative impact on driving skills which deteriorate with increasing dementia severity. (AAN, 2010)

Compared with cognitively intact older adults drivers, studies suggest that drivers with dementia have at least a 2-fold greater risk of crashes. (Carr DB et al. JAMA. 2010;303(16):1632-1641.) “Physicians can influence their patients’ decisions to modify or stop driving. They can also help their patients maintain safe driving skills.” (AMA Physician’s Guide to Assessing and Counseling Older Drivers, 2010) Clinicians should address the risks of driving in patients with dementia for the safety of the patient and everyone on the road.

CLINICAL RECOMMENDATION STATEMENTS:
A diagnosis of Alzheimer’s disease is not, on its own, a sufficient reason to withdraw driving privileges. The determining factor in withdrawing driving privileges should be an individual’s driving ability. (Alzheimer’s Association, 2001)
All patients and families should be informed that even mild dementia increases the risk of vehicular accidents (Category I). Mildly impaired patients should be advised to limit their driving to safer situations or to stop driving (Category I), and moderately impaired patients should be instructed not to drive (Category I). Advice about driving cessation should also be communicated to family members, as the implementation of the recommendation often falls on them (Category I). Relevant state laws regarding notification should be followed (Category I). (APA, 2007)

For patients with dementia, consider the following characteristics useful for identifying patients at increased risk for unsafe driving: the Clinical Dementia Rating scale (Level A), a caregiver’s rating of a patient’s driving ability as marginal or unsafe (Level B), a history of crashes or traffic citations (Level C), reduced driving mileage or self-reported situational avoidance (Level C), Mini-Mental State Examination scores of (California Workgroup on Guidelines for Alzheimer’s Disease Management, 2008) or less (Level C), and aggressive or impulsive personality characteristics (Level C). Consider the following characteristics not useful for identifying patients at increased risk for unsafe driving: a patient’s self-rating of safe driving ability (Level A) and lack of situational avoidance (Level C). There is insufficient evidence to support or refute the benefit of neuropsychological testing, after controlling for the presence and severity of dementia, or interventional strategies for drivers with dementia (Level U). Clinicians may present patients and their caregivers with the data showing that, as a group, patients with mild dementia (CDR of 1) are at a substantially higher risk for unsafe driving and thus should strongly consider discontinuing driving. At the very least, patients and their caregivers should prepare for the eventuality of driving cessation as dementia severity increases. (AAN, 2010)

MEASURE #288 – DEMENTIA: CAREGIVER EDUCATION AND SUPPORT
RATIONALE:
The vast majority (87%) of individuals with Alzheimer’s disease are cared for at home by family members. (Alz Assoc, 2009) Chodosh et al. found that greater caregiver knowledge of dementia management was associated with higher care quality. (Chodosh J et al. J Am Geriatr Soc. 2007 Aug;55(8):1260-8.) Other studies have indicated that intensive caregiver support in the form of individual and family counseling and on-going telephone counseling results in improved patient health outcomes. (Gaugler JE et al. J Am Geriatr Soc. 2005;53:2098–2105., Mittelman MS et al. Neurology. 2006;67:1592–1599.) Providing education to caregivers and referring them to additional sources for support is a critically important piece of comprehensive care for patients with dementia.

CLINICAL RECOMMENDATION STATEMENTS:
Important aspects of psychiatric management include educating patients and families about the illness, its treatment, and sources of additional care and support (eg, support groups, respite care, nursing homes, and other long-term care facilities) and advising patients and their families of the need for financial and legal planning due to the patient’s eventual incapacity (eg, power of attorney for medical and financial decisions, an up-to-date will, and the cost of long-term care) (Category I)… The family should be educated regarding basic principles of care, including 1) recognizing declines in capacity and adjusting expectations appropriately, 2) bringing sudden declines in function and the emergence of new symptoms to professional attention, 3) keeping requests and demands relatively simple, 4) deferring requests if the patient becomes overly upset or angered, 5) avoiding overly complex tasks that may lead to frustration, 6) not confronting patients about their deficits, 7) remaining calm, firm, and supportive and providing redirection if the patient becomes upset, 8) being consistent and avoiding unnecessary change, and 9) providing frequent reminders, explanations, and orientation cues… In addition to providing families with information on support groups, there are a number of benefits of referral to the local chapter or national office of the Alzheimer’s Association (1-800-272-3900; Alzheimer's Association Website), the Alzheimer’s Disease Education and Referral Center (ADEAR) (1-800-438-4380; Alzheimer's Disease Education and Referral Center Website), and other support organizations. (APA, 2007).

Studies have shown that education and support for caregivers increases the chances of adherence to treatment recommendations for patients. The PCP should provide information and education about the current stage of the disease process and talk with the patient and family to establish treatment goals. Based on the agreed-upon goals, a discussion regarding the expected effects (positive and negative) of interventions on cognition, mood, and behavior
will ensure that the prescribed treatment strategy is appropriate to family values and culture. (California Workgroup on Guidelines for Alzheimer’s Disease Management, 2008)

Seamless resource referral and access to critical services for both patients and caregivers are considered essential. The PCP should encourage the caregiver to participate in educational programs, support groups, respite services, and adult day service programs. The local Alzheimer’s Association chapter or other local agency support groups and community resources such as the Caregiver Resources Centers should be recommended. (California Workgroup on Guidelines for Alzheimer’s Disease Management, 2008).
PARKINSON’S DISEASE MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN PARKINSON’S DISEASE MEASURES GROUP:
#47 Care Plan
#289 Parkinson’s Disease: Annual Parkinson’s Disease Diagnosis Review
#290 Parkinson’s Disease: Psychiatric Disorders or Disturbances Assessment
#291 Parkinson’s Disease: Cognitive Impairment or Dysfunction Assessment
#292 Parkinson’s Disease: Querying about Sleep Disturbances
#293 Parkinson’s Disease: Rehabilitative Therapy Options
#294 Parkinson’s Disease: Parkinson’s Disease Medical and Surgical Treatment Options Reviewed

INSTRUCTIONS FOR REPORTING:

• It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8903: I intend to report the Parkinson’s Disease Measures Group

• Report the patient sample method:

  20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

• Patient sample criteria for the Parkinson’s Disease Measures Group are patients aged 18 years and older with a specific diagnosis of Parkinson’s Disease accompanied by a specific patient encounter:

  The following diagnosis code indicating Parkinson’s disease:
  ICD-10-CM: G20

  Accompanied by:

  One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99312, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99337, 99341, 99342, 99343, 99344, 99345, 99346, 99347, 99348, 99349, 99350

• To satisfactorily report the Parkinson’s Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

• Measure #47 need only be reported on patients 65 years and older.

• Instructions for qualifying numerator option reporting for each of the measures within the Parkinson’s Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  Composite QDC G8762: All quality actions for the applicable measures in the Parkinson’s Disease Measures Group have been performed for this patient
• Measure Group Reporting Calculations:

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

• NOTE: The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #47 (NQF 0326): Care Plan -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

NUMERATOR:
Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

Numerator Instructions: If patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, report 1124F.

Definition:
Documentation that Patient did not Wish or was not able to Name a Surrogate Decision Maker or Provide an Advance Care Plan – May also include, as appropriate, the following:
- That the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship.

Numerator Note: The CPT Category II codes used for this measure indicate: Advance Care Planning was discussed and documented. The act of using the Category II codes on a claim (or equivalent medical record documentation) indicates the provider confirmed that the Advance Care Plan was in the medical record (that is, at the point in time the code was assigned, the Advance Care Plan in the medical record was valid) or that advance care planning was discussed. The codes (or equivalent medical record documentation) are required annually to ensure that the provider either confirms annually that the plan in the medical record is still appropriate or starts a new discussion. The provider does not need to review the Advance Care Plan annually with the patient to meet the numerator criteria; documentation of a previously developed advanced care plan that is still valid in the medical record meets numerator criteria.

Numerator Options:
Performance Met: Advance Care Planning discussed and documented; advance care plan or surrogate decision maker documented in the medical record (1123F)

OR
Performance Met: Advance Care Planning discussed and documented in the medical record; patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan (1124F)

OR
Performance Not Met: Advance care planning not documented, reason not otherwise specified (1123F with 8P)
Measure #289: Parkinson’s Disease: Annual Parkinson’s Disease Diagnosis Review -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
All patients with a diagnosis of Parkinson's disease who had an annual assessment including a review of current medications (e.g., medications that can produce Parkinson-like signs or symptoms) and a review for the presence of atypical features (e.g., falls at presentation and early in the disease course, poor response to levodopa, symmetry at onset, rapid progression [to Hoehn and Yahr stage 3 in 3 years], lack of tremor or dysautonomia) at least annually.

NUMERATOR:
All patients who had an annual assessment including a review of current medications and for the presence of atypical features.

Numerator Options:

Performance Met: Parkinson’s disease diagnosis reviewed (1400F)

OR

Performance Not Met: Parkinson’s disease diagnosis was not reviewed, reason not otherwise specified (1400F with 8P)
Measure #290: Parkinson's Disease: Psychiatric Disorders or Disturbances Assessment --
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
All patients with a diagnosis of Parkinson's disease who were assessed for psychiatric disorders or disturbances (e.g., psychosis, depression, anxiety disorder, apathy, or impulse control disorder) at least annually

NUMERATOR:
Patients who were assessed for psychiatric disorders or disturbances (e.g., psychosis, depression, anxiety disorder, apathy, or impulse control disorder) at least annually

Numerator Options:
Performance Met: Psychiatric disorders or disturbances assessed (3700F)

OR

Performance Not Met: Psychiatric disorders or disturbances not assessed, reason not otherwise specified (3700F with 8P)
Measure #291: Parkinson’s Disease: Cognitive Impairment or Dysfunction Assessment –
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
All patients with a diagnosis of Parkinson’s disease who were assessed for cognitive impairment or dysfunction at least annually

NUMERATOR:
Patients who were assessed for cognitive impairment or dysfunction at least annually

Numerator Options:
Performance Met: Cognitive impairment or dysfunction assessed (3720F)

OR

Performance Not Met: Cognitive impairment or dysfunction was not assessed, reason not otherwise specified (3720F with 8P)
### Measure #292: Parkinson’s Disease: Querying about Sleep Disturbances -- National Quality Strategy Domain: Effective Clinical Care

**DESCRIPTION:**
All patients with a diagnosis of Parkinson's disease (or caregiver(s), as appropriate) who were queried about sleep disturbances at least annually

**NUMERATOR:**
Patients (or caregiver(s), as appropriate) who were queried about sleep disturbances at least annually

<table>
<thead>
<tr>
<th>Numerator Options:</th>
<th>Performance Met:</th>
<th>Patient (or caregiver) queried about sleep disturbances (4328F)</th>
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<tbody>
<tr>
<td>OR</td>
<td>Medical Performance Exclusion:</td>
<td>Documentation of medical reason(s) for not querying about sleep disturbances <em>(4328F with 1P)</em></td>
</tr>
<tr>
<td>OR</td>
<td>Performance Not Met:</td>
<td>Patient (or caregiver) not queried about sleep disturbances, reason not otherwise specified <em>(4328F with 8P)</em></td>
</tr>
</tbody>
</table>
Measure #293: Parkinson’s Disease: Rehabilitative Therapy Options -- National Quality Strategy
Domain: Communication and Care Coordination

DESCRIPTION:
All patients with a diagnosis of Parkinson’s Disease (or caregiver(s), as appropriate) who had rehabilitative therapy options (e.g., physical, occupational, or speech therapy) discussed at least annually.

NUMERATOR:
Patients (or caregiver(s), as appropriate) who had rehabilitative therapy options (e.g., physical, occupational, or speech therapy) discussed at least annually.

Numerator Options:

Performance Met: Rehabilitative therapy options discussed with patient (or caregiver) (4400F)

Medical Performance Exclusion: Documentation of medical reason(s) for not discussing rehabilitative therapy options with patient (or caregiver) (4400F with 1P)

Performance Not Met: Rehabilitative therapy options not discussed with patient (or caregiver), reason not otherwise specified (4400F with 8P)
Measure #294: Parkinson’s Disease: Parkinson’s Disease Medical and Surgical Treatment Options Reviewed -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
All patients with a diagnosis of Parkinson's disease (or caregiver(s), as appropriate) who had the Parkinson's disease treatment options (e.g., non-pharmacological treatment, pharmacological treatment, or surgical treatment) reviewed at least once annually

NUMERATOR:
Patients (or caregiver(s), as appropriate) who had the Parkinson's disease treatment options (e.g., non-pharmacological treatment, pharmacological treatment, or surgical treatment) reviewed at least once annually

Numerator Options:

Performance Met: Medical and surgical treatment options reviewed with patient (or caregiver) (4325F)

OR

Medical Performance Exclusion: Medical and surgical treatment options not reviewed with patient (or caregiver) for medical reasons (e.g., patient is unable to respond and no informant is available) (4325F with 1P)

OR

Performance Not Met: Medical and surgical treatment options not reviewed with patient (or caregiver), reasons not otherwise specified (4325F with 8P)
PARKINSON’S DISEASE MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #47 – CARE PLAN
RATIONALE:
It is essential that the patient’s wishes regarding medical treatment be established as much as possible prior to incapacity. The Work Group has determined that the measure should remain as specified with no required timeframe based on a review of the literature. Studies have shown that people do change their preferences often with regard to advanced care planning, but it primarily occurs after a major medical event or other health status change. In the stable patient, it would be very difficult to define the correct interval. It was felt by the Work Group that the error rate in simply not having addressed the issue at all is so much more substantial (Teno, 1997) than the risk that an established plan has become outdated that we should not define a specific timeframe at this time. As this measure is tested and reviewed, we will continue to evaluate if and when a specific timeframe should be included.

CLINICAL RECOMMENDATION STATEMENTS:
Advance directives are designed to respect patient’s autonomy and determine his/her wishes about future life-sustaining medical treatment if unable to indicate wishes. Key interventions and treatment decisions to include in advance directives are: resuscitation procedures, mechanical respiration, chemotherapy, radiation therapy, dialysis, simple diagnostic tests, pain control, blood products, transfusions, and intentional deep sedation.

Oral statements
- Conversations with relatives, friends, and clinicians are most common form; should be thoroughly documented in medical record for later reference.
- Properly verified oral statements carry same ethical and legal weight as those recorded in writing.

Instructional advance directives (DNR orders, living wills)
- Written instructions regarding the initiation, continuation, withholding, or withdrawal of particular forms of life-sustaining medical treatment.
- May be revoked or altered at any time by the patient.
- Clinicians who comply with such directives are provided legal immunity for such actions.

Durable power of attorney for health care or health care proxy
- A written document that enables a capable person to appoint someone else to make future medical treatment choices for him or her in the event of decisional incapacity. (AGS)

The National Hospice and Palliative Care Organization provides the Caring Connection web site, which provides resources and information on end-of-life care, including a national repository of state-by-state advance directives.

MEASURE #289 - PARKINSON’S DISEASE: ANNUAL PARKINSON’S DISEASE DIAGNOSIS REVIEW
RATIONALE:
Because the diagnosis of Parkinson’s disease is clinical with no confirmatory laboratory or imaging study, it is important to review the diagnosis periodically in order to ensure that no atypical features emerge. The emergence of atypical features in a patient previously thought to have Parkinson’s disease will influence prognosis and medical treatment. It has been demonstrated that in the course of caring for patients with suspected Parkinson’s disease, 10-15% will ultimately have a different pathologic diagnosis. This measure will alert the clinician to the emergence of atypical features in Parkinson’s disease and suggest alternate diagnostic possibilities.

CLINICAL RECOMMENDATION STATEMENTS:
The diagnosis of PD should be reviewed regularly (6-12 month intervals seen to review diagnosis) and re-considered if atypical clinical features develop. (Level D (DS)) NICE GL35 (June 2006)

Determining the presence of the following clinical features in early stages of disease should be considered to distinguish PD from other parkinsonian syndromes: 1) falls at presentation and early in the disease course, 2) poor response to levodopa, 3) symmetry at onset, 4) rapid progression (to Hoehn and Yahr stage 3 in 3 years), 5) lack of tremor, and 6) dysautonomia (urinary urgency/incontinence and fecal incontinence, urinary retention requiring catheterization, persistent erectile failure, or symptomatic orthostatic hypotension) (Level B). AAN QSS PD (April 2006)

All veterans with the suspected diagnosis of PD who are also receiving medications known to cause parkinsonism (e.g., neuroleptics) should have a trial of withdrawal of these medications, a trial of low-potency neuroleptic, or documentation in the medical record that the medication could not be withdrawn before making the diagnosis of PD. Cheng #1 (Assessment of medication-induced PD) 2004


Cheng Eric, Siderowf Andrew, Swarztrauber Kari, Eisa Mahmood, Lee Martin and Vickrey Barbara. Development of Quality of Care Indicators for Parkinson’s disease

MEASURE #290 - PARKINSON'S DISEASE: PSYCHIATRIC DISORDERS OR DISTURBANCES ASSESSMENT RATIONALE:
Parkinson’s disease is associated with a wide range of psychiatric disorders. Some of these problems are related to the disease itself and some are related to the medications used to treat the disease. These disorders range from anxiety and depression to psychosis and impulse control disorder. It has been demonstrated that depression, in particular, has been often overlooked as a diagnostic possibility in patients with Parkinson’s disease. In fact, it has been demonstrated that depression and other psychiatric disorders are often overlooked in the general medical population. This measure will ensure that the clinician remembers to evaluate the patient for the basis of these psychiatric disorders on a yearly basis.


Galpern WR, Stacy M. Management of impulse control disorders in Parkinson's disease. Curr Treat Options Neurol. 2007 May;9(3):189-97

**CLINICAL RECOMMENDATION STATEMENTS:**

Clinicians should be aware of dopamine dysregulation syndrome, an uncommon disorder in which dopaminergic medication misuse is associated with abnormal behaviors, including hypersexuality, pathological gambling and stereotypic motor acts. This syndrome may be difficult to manage. (Level D) NICE GL35 (Jun 2006).

If a veteran with PD presents with new onset of one of the following symptoms: sad mood, feeling down; insomnia or difficulties with sleep; apathy or loss of interest in pleasurable activities; complains of memory loss; unexplained weight loss of greater than 5% in the past month or 10% over one year; or unexplained fatigue or low energy, then the patient should be asked about or treated for depression, or referred to a mental health professional within two weeks of presentation. (Outcomes Impact 5; Room for Improvement 4; Overall utility rating 4) Cheng 2004

Clinicians should have a low threshold for diagnosing depression in PD. (Level D) NICE GL35 (Jun 2006) All veterans with PD should be reassessed for complications of PD (including, but not limited to functional status, excessive daytime somnolence, speech and swallowing difficulties, dementia, depression, and psychosis) at least on an annual basis. Cheng #10 (Reassessment for complications for PD) 2004

All people with PD and psychosis should receive a general medical evaluation and treatment for any precipitating condition. (Level D) NICE GL35 (Jun 2006)


**MEASURE #291 - PARKINSON’S DISEASE: COGNITIVE IMPAIRMENT OR DYSFUNCTION ASSESSMENT RATIONALE:**

Parkinson’s disease is associated with cognitive impairment. It is important to assess patients with Parkinson’s disease on an annual basis with regard to their cognitive abilities. Clinically significant cognitive difficulties may be present early on in the disease course, but dementia may emerge and be diagnosed later in the course of the disease. However, the insidious onset of cognitive impairment/dementia often occurs over a prolonged period of time. Emerging cognitive impairment has limited treatment, but is important to identify in terms of the patient’s care and responsibilities within the home, socially, or in the work place.

Factor, S. Weiner, W. Parkinson’s Disease: Diagnosis and Clinical Management . 2002

**CLINICAL RECOMMENDATION STATEMENTS:**

The Mini-Mental State Examination (MMSE) and the Cambridge Cognitive Examination (CAM Cog) should be considered as screening tools for dementia in patients with PD (Level B). AAN QSS (April 2006)

All veterans with PD should be reassessed for complications of PD (including, but not limited to functional status, excessive daytime somnolence, speech and swallowing difficulties, dementia, depression, and psychosis) at least on an annual basis. Cheng #10 (Reassessment for complications for PD) 2004


This measure may be used as an accountability measure.

**MEASURE #292 - PARKINSON’S DISEASE: QUERYING ABOUT SLEEP DISTURBANCES**

**RATIONALE:**
Sleep disorders are common in Parkinson’s disease and most commonly include sleep fragmentation (80%), restless legs syndrome (20%), REM behavior sleep disorder (>40%), and excessive daytime sleepiness (~50%). Sleep fragmentation could relate to motor symptoms such as tremor and dystonia, restless legs syndrome, depression, anxiety, agitation, urinary frequency, or medication (most notably selegiline but also dopamine agonists). Several approaches to effective therapy are available. Excessive daytime sleepiness could result in sleep attacks or unintended sleep episodes. Such episodes have been described in various situations, including while driving a car. Excessive daytime sleepiness may result from medication (dopamine agonists), dementia, psychosis, or poor nocturnal sleep hygiene and is generally more common in advanced Parkinson’s disease.

Medication adjustment and the use of stimulants may be warranted. REM behavior disorder is defined by the patient acting out dreams. The result could be either the patient or spouse moving to a different bedroom. This syndrome is treated with benzodiazepines and other medications. Assessing sleep would be expected to lead to improved morbidity and function.


**CLINICAL RECOMMENDATION STATEMENTS:**
A full sleep history should be taken from people with PD who report sleep disturbance (Level D) NICE GL35 (Jun 2006)

Good sleep hygiene should be advised in people with PD with any sleep disturbance and includes: avoidance of stimulants (for example, coffee, tea, caffeine) in the evening; establishment of a regular pattern of sleep; comfortable bedding and temperature; provision of assistive devices, such as a bed lever or rails to aid with moving and turning, allowing the person to get more comfortable; restriction of daytime siestas; advice about taking regular and appropriate exercise to induce better sleep; a review of all medication and avoidance of any drugs that may affect sleep or alertness, or may interact with other medication (for example, selegiline, antihistamines, H2 antagonists, antipsychotics and sedatives). NICE GL35 (June 2006)

All veterans with PD should be reassessed for complications of PD (including, but not limited to functional status, excessive daytime somnolence, speech and swallowing difficulties, dementia, depression, and psychosis) at least on an annual basis. Cheng #10 (Reassessment for complications for PD) 2004


**MEASURE #293 - PARKINSON’S DISEASE: REHABILITATIVE THERAPY OPTIONS**

**RATIONALE:**
For those patients with Parkinson’s disease who have impaired activities of daily living, therapy options such as physical, occupational, and speech therapy should be offered. Rehabilitative therapies play an important role in
improving function and quality of life for these patients. Symptomatic therapy can provide benefit for many years. Patients with Parkinson's disease commonly develop dysarthria.


Factor, S. Weiner, W. Parkinson’s Disease: Diagnosis and Clinical Management. 2002

CLINICAL RECOMMENDATION STATEMENTS:
Physiotherapy should be available for people with PD. Particular consideration should be given to: gait re-education, improvement of balance and flexibility; enhancement of aerobic capacity; improvement of movement initiation; improvement of functional independence, including mobility and activities of daily living; provision of advice regarding safety in the home environment. (Level B) NICE GL35 (Jun 2006)

Occupational therapy should be available for people with PD. Particular consideration should be given to: maintenance of work and family roles, home care and leisure activities; improvement and maintenance of transfers and mobility; improvement of personal self-care activities, such as eating, drinking, washing, and dressing; cognitive assessment and appropriate intervention. (Level D) NICE GL35 (Jun 2006)

Speech and language therapy should be available for people with PD. Particular consideration should be given to: Improvement of vocal loudness and pitch range, including speech therapy programs such as Lee Silverman Voice Treatment (LSVT) (Level B) NICE GL35 (Jun 2006)

All veterans with PD who have impairment of ADLs or in walking ability should be referred for physical therapy. Cheng et al. #9 (Referral for physical therapy) 2004

For patients with Parkinson’s disease complicated by dysarthria, speech therapy may be considered to improve speech volume (Level C). Different exercise modalities, including multidisciplinary rehabilitation, active music therapy, treadmill training, balance training, and "cued" exercise training are probably effective in improving functional outcomes for patients with Parkinson’s disease. For patients with Parkinson’s disease, exercise therapy may be considered to improve function (Level C). AAN QSS Neuro Alt (April 2006)


MEASURE #294 - PARKINSON'S DISEASE: PARKINSON'S DISEASE MEDICAL AND SURGICAL TREATMENT OPTIONS REVIEWED
RATIONALE:
There are many different pharmacological, non-pharmacological, and surgical treatment options available for patients diagnosed with Parkinson’s disease. Within each type of treatment, there are also multiple factors to be considered when deciding whether a patient with Parkinson’s disease is a candidate for the treatment option.

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With the advent of newly available pharmacological treatments from many different ongoing clinical trials and studies, the patient’s current medication treatment should be reviewed as therapy-based reviews are updated.


**CLINICAL RECOMMENDATION STATEMENTS:**
People with PD should have regular access to the following: clinical monitoring and medication adjustment; a continuing point of contact for support, including home visits when appropriate; a reliable source of information about clinical and social matters of concern to people with PD and their careers which may be provided by a Parkinson’s disease nurse specialist. NICE GL35. (June 2006)

With the current evidence it is not possible to decide if the subthalamic nucleus or globus pallidus interna is the preferred target for deep brain stimulation for people with PD, or whether one form of surgery is more effective or safer than the other. In considering the type of surgery, account should be taken of: clinical and lifestyle characteristics of the person with PD; patient preference, after the patient has been informed of the potential benefits and; drawbacks of the different surgical procedures. (Level D) NICE GL35 (June 2006)

CATARACTS MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN CATARACTS MEASURES GROUP:
#130  Documentation of Current Medications in the Medical Record
#191  Cataracts: 20/40 or Better Visual Acuity within 90 Days Following Cataract Surgery
#192  Cataracts: Complications within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures
#226  Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#303  Cataracts: Improvement in Patient's Visual Function within 90 Days Following Cataract Surgery
#304  Cataracts: Patient Satisfaction within 90 Days Following Cataract Surgery
#388  Cataract Surgery with Intra-Operative Complications (Unplanned Rupture of Posterior Capsule Requiring Unplanned Vitrectomy)
#389  Cataract Surgery: Difference Between Planned and Final Refraction

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8906: I intend to report the Cataracts Measures Group

- Report the patient sample method:
  20 Patient Sample Method: 20 unique procedures (patients – a majority of which must be Medicare Part B FFS [fee for service] patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Cataracts Measures Group are patients aged 18 years and older that have a specific procedure for cataract surgery performed:

  One of the following procedure codes indicating cataract surgery: 66840, 66850, 66852, 66920, 66930, 66940, 66983, 66984

  WITHOUT
  Modifier 55 (postoperative management only) OR Modifier 56 (preoperative management only)

- To satisfactory report the Cataract’s Measures Group requires reporting a numerator option on all applicable measures, for each patient (unique procedure) within the eligible professional’s patient sample, a minimum of once during the reporting period. Include only procedures performed through September 30 of the reporting period. Procedures performed October 1 through December 31 of the reporting period are not included.

- Measures #191 and #192 do not need to be reported (are not applicable) when the patient also has a diagnosis of complicated cataract. Refer to the measure specification on the following pages for specific codes indicating a diagnosis of complicated cataract for each of these two measures.

- Measure #388 does not need to be reported (is not applicable) when history of preoperative posterior capsule rupture.
• Instructions for qualifying numerator option reporting for each of the measures within the Cataracts Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

**Composite QDC G8765:** All quality actions for the applicable measures in the Cataracts Measures Group have been performed for this patient

• This measures group contains one or more inverse measures. An inverse measure is a measure that represents a poor clinical quality action as meeting performance for the measure. For these measures, a lower performance rate indicates a higher quality of clinical care. Composite codes for measures groups that contain inverse measures are only utilized when the appropriate quality clinical care is given.

• The composite code for this measures group may be reported when codes in the summary table below are applicable for reporting of each measure within the measures group.

**Table 9 - QDC Options**

<table>
<thead>
<tr>
<th>Measure</th>
<th>#130</th>
<th>#191</th>
<th>#192*</th>
<th>#226</th>
<th>#303</th>
<th>#304</th>
<th>#388*</th>
<th>#389</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDC options for acceptable use of the composite QDC</td>
<td>G8427</td>
<td>4175F</td>
<td>G8628</td>
<td>4004F or 1036F</td>
<td>G0913</td>
<td>G0916</td>
<td>G9390</td>
<td>G9519</td>
</tr>
</tbody>
</table>

*Indicates an inverse measure

• Measure Group Reporting Calculations:

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

When a lower rate indicates better performance, such as Measure #192, a 0% performance rate will be counted as satisfactorily reporting (100% performance rate would not be considered satisfactorily reporting).

• **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record --
National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a
list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient's current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
• Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met: Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

OR

Other Performance Exclusion: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR

Performance Not Met: Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #191 (NQF 0565): Cataracts: 20/40 or Better Visual Acuity within 90 Days Following Cataract Surgery -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of uncomplicated cataract who had cataract surgery and no significant ocular conditions impacting the visual outcome of surgery and had best-corrected visual acuity of 20/40 or better (distance or near) achieved within 90 days following the cataract surgery

Note: This is an outcome measure and can be calculated solely using registry data.

- Include only procedures performed through September 30th of the reporting period. This will allow the post-operative period to occur within the reporting year.
- For patients who receive the cataract surgical procedures specified in the common denominator coding, it should be reported whether or not the patient had best-corrected visual acuity of 20/40 or better achieved within 90 days following cataract surgery.
- Patients who have any of the listed significant ocular conditions [comorbid] in the exclusion criteria should be removed from the denominator; these patients have existing ocular conditions that could impact the outcome of surgery and are not included in the measure calculation for those patients who have best-corrected visual acuity of 20/40 or better (distance or near) achieved within 90 days following the cataract surgery.
- Patients with documentation of the presence of one or more of the listed significant ocular conditions that impact the visual outcome of surgery prior to date of cataract surgery which is still active at the time of the cataract surgery are excluded from the measure calculation

Table 10 - Significant Ocular Conditions

<table>
<thead>
<tr>
<th>Significant Ocular Condition</th>
<th>Corresponding ICD-10-CM Codes</th>
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</thead>
<tbody>
<tr>
<td>Choroidal Degenerations</td>
<td>H35.33</td>
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<tr>
<td>Choroidal Detachment</td>
<td>H31.411, H31.412, H31.413, H31.419</td>
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<td>Chronic Iridocyclitis</td>
<td>A18.54, H20.10, H20.11, H20.12, H20.13, H20.9</td>
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<tr>
<td>Significant Ocular Condition</td>
<td>Corresponding ICD-10-CM Codes</td>
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<tr>
<td>------------------------------------------------------------------</td>
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<tr>
<td>Cloudy Cornea</td>
<td>H17.00, H17.01, H17.02, H17.03, H17.10, H17.11, H17.12, H17.13,</td>
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<td>H17.829</td>
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<td>Corneal Opacity and Other Disorders of</td>
<td>H17.00, H17.01, H17.02, H17.10, H17.11, H17.12, H17.13,</td>
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<td>Cornea</td>
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<td>Corneal Edema</td>
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<td>H18.423, H18.429, H18.43</td>
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<td>Degeneration of Macula and Posterior Pole</td>
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<td>H35.382, H35.383, H35.389</td>
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<td>Degenerative Disorders of Globe</td>
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<td>H44.393, H44.399</td>
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<td>E09.331, E09.341, E09.351, E10.311, E10.321, E10.331, E10.341,</td>
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<td>Diabetic Retinopathy</td>
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<td>E13.359</td>
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<td>Disorders of Optic Chiasm</td>
<td>H47.41, H47.42, H47.43, H47.49</td>
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<td>Disorders of Visual Cortex</td>
<td>H47.611, H47.612, H47.619</td>
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<td>Disseminated Chorioretinitis and Disseminated Retinochoroiditis</td>
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<td>H30.019, H30.021, H30.022, H30.023, H30.029, H30.031, H30.032,</td>
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<td>H30.033, H30.039, H30.041, H30.042, H30.043, H30.049</td>
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<td>Glaucoma Associated with Congenital Anomalies, Dystrophies, and Systemic Syndromes</td>
<td>H40.30X0, H40.30X1, H40.30X2, H40.30X3, H40.30X4, H40.31X0, H40.31X1, H40.31X2, H40.31X3, H40.31X4, H40.32X0, H40.32X1, H40.32X2, H40.32X3, H40.32X4, H40.33X0, H40.33X1, H40.33X2, H40.33X3, H40.33X4, H40.40X0, H40.40X1, H40.40X2, H40.40X3, H40.40X4, H40.41X0, H40.41X1, H40.41X2, H40.41X3, H40.41X4, H40.42X0, H40.42X1, H40.42X2, H40.42X3, H40.42X4, H40.43X0, H40.43X1, H40.43X2, H40.43X3, H40.43X4, H40.50X0, H40.50X1, H40.50X2, H40.50X3, H40.50X4, H40.51X0, H40.51X1, H40.51X2, H40.51X3, H40.51X4, H40.52X0, H40.52X1, H40.52X2, H40.52X3, H40.52X4, H40.53X0, H40.53X1, H40.53X2, H40.53X3, H40.53X4, H40.811, H40.812, H40.813, H40.819, H40.821, H40.822, H40.823, H40.829, H40.831, H40.832, H40.833, H40.839, H40.89, H40.9, H42</td>
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<td>Hereditary Retinal Dystrophies</td>
<td>H35.50, H35.51, H35.52, H35.53, H35.54, H36</td>
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<td>Moderate or Severe Impairment, Better Eye, Profound Impairment Lesser Eye</td>
<td>H54.10, H54.11, H54.12</td>
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<tr>
<td>Nystagmus and Other Irregular Eye Movements</td>
<td>H55.01</td>
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<tr>
<td>Open Wound of Eyeball</td>
<td>S05.10XA, S05.11XA, S05.12XA, S05.20XA, S05.21XA, S05.22XA, S05.30XA, S05.31XA, S05.32XA, S05.50XA, S05.51XA, S05.52XA, S05.60XA, S05.61XA, S05.62XA, S05.70XA, S05.71XA, S05.72XA, S05.8X1A, S05.8X2A, S05.8X9A, S05.90XA, S05.91XA, S05.92XA</td>
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<td>Optic Atrophy</td>
<td>H47.20, H47.211, H47.212, H47.213, H47.219, H47.22, H47.231, H47.232, H47.233, H47.239, H47.291, H47.292, H47.293, H47.299</td>
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<td>Optic Neuritis</td>
<td>H46.00, H46.01, H46.02, H46.03, H46.10, H46.11, H46.12, H46.13, H46.2, H46.3, H46.8, H46.9</td>
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<tr>
<td>Other Background Retinopathy and Retinal Vascular Changes</td>
<td>H35.021, H35.022, H35.023, H35.029, H35.051, H35.052, H35.053, H35.059, H35.061, H35.062, H35.063, H35.069</td>
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<td>Other Disorders of Optic Nerve</td>
<td>H47.011, H47.012, H47.013, H47.019</td>
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<td>Other Disorders of Sclera</td>
<td>H15.831, H15.832, H15.833, H15.839, H15.841, H15.842, H15.843, H15.849</td>
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<td>Other Retinal Disorders</td>
<td>H35.60, H35.61, H35.62, H35.63, H35.81, H35.82, H35.89</td>
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<tr>
<td>Significant Ocular Condition</td>
<td>Corresponding ICD-10-CM Codes</td>
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<tr>
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<tr>
<td>Pathologic Myopia</td>
<td>H44.20, H44.21, H44.22, H44.23, H44.30</td>
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<tr>
<td>Profound Impairment, Both Eyes</td>
<td>H54.0, H54.10</td>
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<td>Purulent Endophthalmitis</td>
<td>H44.001, H44.002, H44.003, H44.009, H44.011, H44.012, H44.013, H44.019, H44.021, H44.022, H44.023, H44.029</td>
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<td>Retinal Vascular Occlusion</td>
<td>H34.10, H34.11, H34.12, H34.13, H34.231, H34.232, H34.233, H34.239, H34.811, H34.812, H34.813, H34.819, H34.831, H34.832, H34.833, H34.839</td>
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<td>Uveitis</td>
<td>H44.111, H44.112, H44.113, H44.119, H44.131, H44.132, H44.133, H44.139</td>
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<td>Visual Field Defects</td>
<td>H53.411, H53.412, H53.413, H53.419</td>
</tr>
</tbody>
</table>

**NUMERATOR:**
Patients who had best-corrected visual acuity of 20/40 or better (distance or near) achieved within 90 days following cataract surgery

**Numerator Options:**

**Performance Met:**

Best-corrected visual acuity of 20/40 or better (distance or near) achieved within the 90 days following cataract surgery *(4175F)*

**OR**

**Performance Not Met:**

Best-corrected visual acuity of 20/40 or better (distance or near) not achieved within the 90 days following cataract surgery, reason not otherwise specified *(4175F with 8P)*

**DESCRIPTION:**
Percentage of patients aged 18 years and older with a diagnosis of uncomplicated cataract who had cataract surgery and had any of a specified list of surgical procedures in the 30 days following cataract surgery which would indicate the occurrence of any of the following major complications: retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment, or wound dehiscence

*Note:* This is an outcome measure and can be calculated solely using registry data.

- For patients who receive the cataract surgical procedures specified in the denominator coding, claims should be reviewed to determine if any of the procedure codes listed in the numerator were performed within 30 days of the date of cataract surgery.
- Patients who have any of the listed significant ocular conditions in the exclusion criteria should be removed from the denominator, and not considered as having a complication within 30 days following cataract surgery.
- Patients with documentation of the presence of one or more of the listed significant ocular conditions that impact the surgical complication rate prior to date of cataract surgery which is still active at the time of the cataract surgery are excluded from the measure calculation.

<table>
<thead>
<tr>
<th>Significant Ocular Condition</th>
<th>Corresponding ICD-10-CM Codes, Procedure Codes, and Medication Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anomalies of Pupillary Function</td>
<td>H57.03</td>
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<tr>
<td>Aphakia and Other Disorders of Lens</td>
<td>H27.10, H27.111, H27.112, H27.113, H27.119, H27.121, H27.122, H27.123, H27.129, H27.131, H27.132, H27.133, H27.139</td>
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<tr>
<td>Cataract, Congenital</td>
<td>Q12.0</td>
</tr>
<tr>
<td>Cataract, Mature or Hypermature</td>
<td>H26.9</td>
</tr>
<tr>
<td>Cataract, Posterior Polar</td>
<td>Q12.0</td>
</tr>
<tr>
<td>Significant Ocular Condition</td>
<td>Corresponding ICD-10-CM Codes, Procedure Codes, and Medication Identified</td>
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<tr>
<td>Chronic Iridocyclitis</td>
<td>A18.54, H20.10, H20.11, H20.12, H20.13, H20.9</td>
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<td>Cloudy Cornea</td>
<td>H17.00, H17.01, H17.02, H17.03, H17.10, H17.11, H17.12, H17.13, H17.811, H17.812, H17.813, H17.819, H17.821, H17.822, H17.823, H17.829</td>
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<td>Corneal Opacity and Other Disorders of Cornea</td>
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<td>Enophthalmos</td>
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<td>High Hyperopia</td>
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<td>Hypotony of Eye</td>
<td>H44.40, H44.411, H44.412, H44.413, H44.419, H44.421, H44.422, H44.423, H44.429, H44.431, H44.432, H44.433, H44.439, H44.441, H44.442, H44.443, H44.449</td>
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<td>Open Wound of Eyeball</td>
<td>S05.10XA, S05.11XA, S05.12XA, S05.20XA, S05.21XA, S05.22XA, S05.30XA, S05.31XA, S05.32XA, S05.50XA, S05.51XA, S05.52XA, S05.60XA, S05.61XA, S05.62XA, S05.70XA, S05.71XA, S05.72XA, S05.81XA, S05.82XA, S05.8X9A, S05.90XA, S05.91XA, S05.92XA</td>
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<td>Significant Ocular Condition</td>
<td>Corresponding ICD-10-CM Codes, Procedure Codes, and Medication Identified</td>
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<td>Pathologic Myopia</td>
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<tr>
<td>Posterior Lenticous</td>
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<tr>
<td>Prior Pars Plana Vitrectomy</td>
<td>67036, 67039, 67040, 67041, 67042, 67043 (patient with history of this procedure)</td>
</tr>
<tr>
<td>Retrolental Fibroplasias</td>
<td>H35.171, H35.172, H35.173, H35.179</td>
</tr>
<tr>
<td>Senile Cataract</td>
<td>H25.89</td>
</tr>
<tr>
<td>Use of Systemic Sympathetic Alpha-1a Antagonist Medication for Treatment of Prostatic Hypertrophy</td>
<td>Patient taking tamsulosin hydrochloride (G9503)</td>
</tr>
<tr>
<td>Uveitis</td>
<td>H44.111, H44.112, H44.113, H44.119, H44.131, H44.132, H44.133, H44.139</td>
</tr>
</tbody>
</table>

**NUMERATOR:**
Patients who had one or more specified operative procedures for any of the following major complications within 30 days following cataract surgery: retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment, or wound dehiscence

**Numerator Instructions:** Codes for major complications (e.g., retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment, or wound dehiscence): 65235, 65860, 65880, 65900, 65920, 65930, 66030, 66250, 66820, 66825, 66830, 66852, 66986, 67005, 67010, 67015, 67025, 67030, 67031, 67036, 67039, 67041, 67042, 67043, 67101, 67105, 67107, 67108, 67110, 67112, 67141, 67145, 67250, 67255

**INVERSE MEASURE** - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

**Numerator Options:**
*Performance Met:* Surgical procedure performed within 30 days following cataract surgery for major complications (e.g., retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment or wound dehiscence) (G8627)

**OR**
Performance Not Met: Surgical procedure not performed within 30 days following cataract surgery for major complications (e.g., retained nuclear fragments, endophthalmitis, dislocated or wrong power IOL, retinal detachment or wound dehiscence) (G8628)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user.

Definitions:
Tobacco Use – Includes use of any type of tobacco.
Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F).

OR
Performance Met: Current tobacco non-user (1036F).

OR
Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P).

OR
Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P).
**Measure #303 (NQF 1536): Cataracts: Improvement in Patient’s Visual Function within 90 Days Following Cataract Surgery -- National Quality Strategy Domain: Person and Caregiver-Centered Experience and Outcomes**

**DESCRIPTION:**
Percentage of patients aged 18 years and older in sample who had cataract surgery and had improvement in visual function achieved within 90 days following the cataract surgery, based on completing a pre-operative and post-operative visual function survey

*Note: This is an outcomes measure and will be calculated solely using registry data.*

- For patients who receive the cataract surgical procedures specified in the denominator coding in the sample, it should be reported whether or not the patient had improvement in visual function achieved within 90 days following the cataract surgery.
- Include only procedures performed through **September 30** of the reporting period. This will allow the post-operative period to occur before registries must submit data to CMS.
- It is the responsibility of a third party, which may be the registry or another third party designated by the eligible professional to administer, receive results, and review the surveys. Each registry must work directly with eligible professionals who wish to report these measures to determine who (a registry or another third party) will be administering, receiving and reviewing the surveys.

**NUMERATOR:**
 Patients 18 years and older who had improvement in visual function achieved within 90 days following cataract surgery, based on completing a pre-operative and post-operative visual function survey

**Numerator Options:**

*Performance Met:*

- Improvement in visual function achieved within 90 days following cataract surgery (G0913)

**OR**

*Other Performance Exclusion:*

- Patient care survey was not completed by patient (G0914)

**OR**

*Performance Not Met:*

- Improvement in visual function not achieved within 90 days following cataract surgery (G0915)
Measure #304: Cataracts: Patient Satisfaction within 90 Days Following Cataract Surgery –
National Quality Strategy Domain: Person and Caregiver-Centered Experience and Outcomes

DESCRIPTION:
Percentage of patients aged 18 years and older in sample who had cataract surgery and were satisfied with their care within 90 days following the cataract surgery, based on completion of the Consumer Assessment of Healthcare Providers and Systems Surgical Care Survey

Note: This is an outcomes measure and will be calculated solely using registry data.

- For patients who receive the cataract surgical procedures specified in the denominator coding in the sample, it should be reported whether or not the patient was satisfied with their care within 90 days following the cataract surgery.
- Include only procedures performed through September 30 of the reporting period. This will allow the post-operative period to occur before registries must submit data to CMS.
- It is the responsibility of a third party, which may be the registry or another third party designated by the eligible professional to administer, receive results, and review the surveys. Each registry must work directly with eligible professionals who wish to report these measures to determine who (a registry or another third party) will be administering, receiving and reviewing the surveys.

NUMERATOR:
Patients 18 years and older in the sample who were satisfied with their care within 90 days following cataract surgery, based on completion of the Consumer Assessment of Healthcare Providers and Systems Surgical Care Survey

Numerator Options:
Performance Met: Satisfaction with care achieved within 90 days following cataract surgery (G0916)

OR
Other Performance Exclusion: Patient care survey was not completed by patient (G0917)

OR
Performance Not Met: Satisfaction with care not achieved within 90 days following cataract surgery (G0918)
**Measure #388: Cataract Surgery with Intra-Operative Complications (Unplanned Rupture of Posterior Capsule Requiring Unplanned Vitrectomy) -- National Quality Strategy Domain: Patient Safety**

**DESCRIPTION:**
Percentage of patients aged 18 years and older who had cataract surgery performed and had an unplanned rupture of the posterior capsule requiring vitrectomy

**NUMERATOR:**
Patients who experienced an unplanned rupture of the posterior capsule requiring vitrectomy during cataract surgery

*Note: This is an outcome measure and will be calculated solely using registry data.*

- For patients who receive the surgical procedures specified in the denominator coding in the sample, it should be reported whether or not the patient had a rupture of the posterior capsule during anterior segment surgery requiring vitrectomy.

**Numerator Instructions:**

**INVERSE MEASURE:** A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

**Numerator Options:**

- **Performance Met:** Unplanned rupture of the posterior capsule requiring vitrectomy during cataract surgery *(G9389)*

  **OR**

- **Performance Not Met:** No unplanned rupture of the posterior capsule requiring vitrectomy during cataract surgery *(G9390)*
Measure #389: Cataract Surgery: Difference Between Planned and Final Refraction -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older who had cataract surgery performed and who achieved a final refraction within +/- 1.0 diopters of their planned (target) refraction

Note: This is an outcome measure and will be calculated solely using registry data.

- For patients who receive the surgical procedures specified in the denominator coding in the sample, it should be reported whether or not the patient had a difference between planned and final refraction.
- Include only procedures performed through September 30 of the reporting period. This will allow the post-operative period to occur before registries must submit data to CMS.

NUMERATOR:
Patients who achieved a final refraction (spherical equivalent) +/- 1.0 diopters of their planned (target) refraction (spherical equivalent) within 90 days following cataract surgery. The refraction planned and final refraction values should correspond to the eye that underwent the cataract procedure

Numerator Options:
Performance Met: Patient achieves final refraction (spherical equivalent) +/- 1.0 Diopters of their planned refraction within 90 days of surgery (G9519)

OR

Performance Not Met: Patient does not achieve final refraction (spherical equivalent) +/- 1.0 Diopters of their planned refraction within 90 days of surgery, reason not given (G9520)
CATARACTS MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD

RATIONALE:
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).
A Systematic Review on “Prevalence of Adverse Drug Events in Ambulatory Care” finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care. Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**

The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: [Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide](http://www.jointcommission.org)).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, *The Physician’s Role in Medication Reconciliation*, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.
MEASURE #191 - CATARACTS: 20/40 OR BETTER VISUAL ACUITY WITHIN 90 DAYS FOLLOWING CATARACT SURGERY

RATIONALE:

1. Scientific basis for measuring visual acuity outcomes after cataract surgery
   The only reason to perform cataract surgery (other than for a limited set of medical indications) is to improve a patient's vision and associated functioning. The use of a 20/40 visual acuity threshold is based on several considerations. First, it is the level for unrestricted operation of a motor vehicle in the US. Second, it has been consistently used by the FDA in its assessment for approval of intraocular lens (IOL) and other vision devices. Third, it is the literature standard to denote success in cataract surgery. Fourth, work by West et al in the Salisbury Eye Study suggests that 20/40 is a useful threshold for 50th percentile functioning for several vision-related tasks.

   Most patients achieve excellent visual acuity after cataract surgery (20/40 or better). This outcome is achieved consistently through careful attention through the accurate measurement of axial length and corneal power and the appropriate selection of an IOL power calculation formula. As such, it reflects the care and diligence with which the surgery is assessed, planned and executed. Failure to achieve this after surgery in eyes without comorbid ocular conditions that would impact the success of the surgery would reflect care that should be assessed for opportunities for improvement.

   The exclusion of patients with other ocular and systemic conditions known to increase the risk of an adverse outcome reflects the findings of the two published prediction rule papers for cataract surgery outcomes, by Mangione et al and Steinberg et al. In both papers, the presence of comorbid glaucoma and macular degeneration negatively impacted the likelihood of successful outcomes of surgery. Further, as noted in the prior indicator, exclusion of eyes with ocular conditions that could impact the success of the surgery would NOT eliminate the large majority of eyes undergoing surgery while also minimizing the potential adverse selection that might otherwise occur relative to those patients with the most complex situations who might benefit the most from having surgery to maximize their remaining vision.

2. Evidence of a gap in care
   This is an outcome of surgery indicator of direct relevance to patients and referring providers. The available evidence suggests that cataract surgery achieves this in between 86% and 98% of surgeries in eyes without comorbid ocular conditions (this indicator). While small, the volume of cataract surgery in the US of over 2.8 million surgeries suggests that the impact could affect more than 100,000 patients per year. Because of the exclusion of comorbid ocular conditions, one would expect performance on this indicator to be as high as possible, with significantly lower rates suggestive of opportunities for improvement.

   The ASCRS National Cataract Database reported that at 3 months postoperatively, 85.5% of all patients had a 20/40 or better best-corrected visual acuity, 57.2% of patients had 20/25 or better postoperative best-corrected visual acuity, and 74.6% of patients were within ± 1.0 D of target spherical equivalent. Based on 5,788 responses, the mean visual function index score at 3 months postoperatively was 70.3% compared with 55.0% preoperatively. (The score is based on a scale of 0 to 100, with 0 indicating an inability to perform any of the activities.) The European Cataract Outcome Study reported for 1999 that 89% of patients achieved a postoperative visual acuity of 0.5 or more (20/40 or better), the average induced astigmatism was 0.59 D, and 86% of patients had an induced astigmatism within ± 1.0 D.

   The AAO National Eyecare Outcomes Network (NEON) database also found similar rates of success, with an improvement in visual acuity in 92.2% of patients and improvement in VF-14 in over 90% of patients. Best-corrected visual acuity (BCVA) of 20/40 was achieved by 89% of all NEON patients and 96% of NEON patients without preoperative ocular comorbid conditions. Seventy-eight percent of patients were within ± 1.0 D of target spherical equivalent. Ninety-five percent of patients reported being satisfied with the results of their surgery. Patients who were dissatisfied with the results of their surgery were slightly older and more likely to have ocular comorbidity.
In studies of phacoemulsification cataract surgery performed by ophthalmology residents, the reported range of patients with postoperative BCVA of 20/40 or better is 80% to 91%. If eyes with ocular comorbidities are excluded, the reported range of patients with postoperative BCVA of 20/40 or better is 86% to 98%. (AAO, 2011)

**CLINICAL RECOMMENDATION STATEMENTS:**

This is an outcome measure. As such, there is no statement in the guideline specific to this measurement topic.

**MEASURE #192 - CATARACTS: COMPLICATIONS WITHIN 30 DAYS FOLLOWING CATARACT SURGERY REQUIRING ADDITIONAL SURGICAL PROCEDURES**

**RATIONALE:**

1. **Scientific basis for assessing short-term complications following cataract surgery**
   
   Complications that may result in a permanent loss of vision following cataract surgery are uncommon. This short-term outcome of surgery indicator seeks to identify those complications from surgery that can reasonably be attributed to the surgery and surgeon and which reflect situations which - if untreated - generally result in significant avoidable vision loss that would negatively impact patient functioning. Further, it seeks to reduce surgeon burden and enhance accuracy in reporting by focusing on those significant complications that can be assessed from administrative data alone and which can be captured by the care of another physician or the provision of additional, separately coded, post-operative services. Finally, it focuses on patient safety and monitoring for events that, while hopefully uncommon, can signify important issues in the care being provided. For example, the need to reposition or exchange an intraocular lens (IOL) reflects in part “wrong power” IOL placement, a major patient safety issue.

   In order to achieve these ends, the indicator excludes patients with other known, pre-operative ocular conditions that could impact the likelihood of developing a complication. Based on the results of the Cataract Appropriateness Project at RAND, other published studies, and one analysis performed on a national MCO data base, the exclusion codes would preserve over 2/3 of all cataract surgery cases for analysis. Thus, this provides a “clean” indicator that captures care for the large majority of patients undergoing cataract surgery.

2. **Evidence for gap in care**

   The advances in technology and surgical skills over the last 30 years have made cataract surgery much safer and more effective. An analysis of a single company’s database (commercial age MCO) demonstrated that the rate of complications found for this indicator was approximately 1 to 2%. Nevertheless, as noted above, the occurrence of one of these events is associated with a significant potential for vision loss that is otherwise avoidable. Furthermore, with an annual volume of 2.8 million cataract surgeries in the US, a 2% rate would mean that over 36,000 surgeries are accompanied by these complications (2/3 of 56,000 surgeries).

   A synthesis of the literature published prior to 1992 found weighted mean complication rates among all patients undergoing cataract surgery of 0.13% for endophthalmitis, 0.3% for bullous keratopathy, 1.4% clinically detectable CME, 3.5% for angiographically demonstrated CME, 0.7% for retinal detachment, and 1.1% for IOL dislocation. Bullous keratopathy and CME are not included in this indicator because they are conditions that are almost always temporary and resolve without additional intervention through additional procedures and associated care in this population of patients without prior known ocular conditions.

   Additional studies similarly demonstrate the low occurrence of complications, including many that are temporary in nature and without a significant impact on patient outcomes. A national survey of over 100 hospitals from 1997 to 1998 found the following results on 18,454 patients 50 years old or older. Seventy-seven percent of these patients had surgery performed by phacoemulsification. Rates for events that occurred during surgery were 4.4% for posterior capsule rupture and vitreous loss, 1.0% for incomplete cortical cleanup, 1.0% for anterior chamber hemorrhage and or collapse, and 0.77% for iris damage. Short-term (within 48 hours) perioperative complications included corneal edema (9.5%), increased IOP (7.9%), uveitis (5.6%), wound leak (1.2%), hyphema (1.1%), and retained lens material (1.1%).
A retrospective study from New Zealand of 1,793 consecutive patients undergoing phacoemulsification reported a rate of 1.8% for posterior capsule rupture and a rate of 1.2% for rhegmatogenous retinal detachment. (AAO, 2006)

CLINICAL RECOMMENDATION STATEMENTS:
This is an outcome measure. As such, there are no statements in the guideline specific to this measurement topic.

MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSION INTERVENTION
RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #303 - CATARACTS: IMPROVEMENT IN PATIENT’S VISUAL FUNCTION WITHIN 90 DAYS FOLLOWING CATARACT SURGERY
RATIONALE:
1. Scientific Basis for Measuring Visual Function Outcomes after Cataract Surgery
   Visual function has been described as having multiple components, including central near, intermediate, and distance visual acuity; peripheral vision; visual search; binocular vision; depth perception; contrast sensitivity; perception of color; adaptation; and visual processing speed. Visual function also can be measured in terms
of functional disability caused by visual impairment. Many activities are affected by more than one of these visual components.

Health services researchers have increasingly emphasized function and quality of life as the outcomes of treatment that are most critical and applicable to the patient. As previously stated, the primary purpose in managing a patient with cataract is to improve functional vision and the quality of life. In well-designed observational studies, cataract surgery consistently has been shown to have a significant impact on vision-dependent function. The Cataract Patient Outcomes Research Team (PORT) reported that 90% of patients under-going first-eye cataract surgery noted improvement in functional status and satisfaction with vision.

The Activities of Daily Vision Study of elderly patients with a high prevalence of coexisting ocular and medical diseases reported improved visual function in 80% of patients at 12 months after surgery. A National Cataract Study conducted in England of 1,139 patients who had cataract surgery found that preoperative functional impairment varied in relation to gender, age, and visual acuity. Men were more likely to have trouble with driving, glare, and employment, and women were more likely to have difficulties with activities of daily living and recreational activities. Studies have found that regardless of the preoperative visual acuity in the better eye, most patients reported improvement in their ability to perform visually dependent tasks after undergoing cataract surgery.

Several studies have reported an association between improved visual function after cataract surgery and improved health-related quality of life. Visual function plays an important role in physical function, particularly in terms of mobility. The loss of visual function in the elderly is associated with a decline in physical and mental functioning as well as in independence in activities of daily living, including night-time driving, daytime driving, community activities, and home activities. Elderly patients with visual impairment only (and no other physical or mental impairments) were 2.5 times as likely to experience functional decline than elderly patients without visual impairment.

Improved visual function following cataract surgery can ameliorate the progressive deterioration of quality of life seen in elderly patients. In a cohort of 464 patients 65 years old and older, cataract extraction improved visual function and health-related quality of life. Patients with an improvement in their Activities of Daily Vision Scale (ADVS), a brief measure of vision-specific functional status, had from 10% to 59% less decline in nearly all Short Form (SF)-36 dimensions. The SF-36 is a generic global measure of multidimensional health-related quality of life. A nationally representative population of 7,114 persons who were 70 years old and older showed that limitations in vision correlated with decreased functional status. The unadjusted functional score of a person with reported poor vision was four times worse than the score for a person with excellent vision. This difference was comparable with the differences found in other chronic conditions such as arthritis. This relationship with vision persisted, even after adjustment for health, demographics, and economic status. Individuals who rated their vision as other than excellent reported worse functional status, even when controlled for the presence of other medical conditions, education, income, general health status, and other symptoms. By improving visual function, cataract surgery may play an important role in preserving overall functional status, reducing associated injuries and accidents, and preventing disability in at-risk elderly patients.

An analysis of the Medical Outcomes Study found that having blurred vision more than once or twice a month has a significant impact on functional status and well-being, particularly on problems with work or other daily activities as a result of physical health. This impact was found to be greater than the impact of several other chronic conditions, such as hypertension, history of myocardial infarction, type 2 diabetes mellitus, indigestion, trouble urinating, and headache. In one study, patients planning to undergo cataract surgery assigned a mean preoperative preference value of 0.68 on a scale ranging from 0 to 1 (where 0 is death and 1 is excellent health), indicating that the visual impairment from cataracts had a substantial impact on their quality of life. Visual impairment is an important risk factor for falls and for hip fracture. Specifically, the Study
for Osteoporotic Fractures Research Group found that poor depth perception and decreased contrast sensitivity independently increased the risk of hip fracture.

Visual impairment, in particular a decrease of visual acuity and contrast sensitivity, has been shown to be associated with difficulties in driving. In one study, older drivers with visually significant cataract were twice as likely as older drivers without cataract to report reduction in days driven and four times as likely to report difficulties in challenging driving situations. Drivers with visually significant cataract were 2.5 times more likely to have had an at-fault involvement in a motor vehicle crash in the past 5 years compared with drivers without cataract. This association was significant, even after accounting for other factors such as impaired general health, age, mental status deficit or depression. In this study, visually significant cataract was determined by reviewing the participant’s medical record and most recent eye examination by an eye care specialist. The study required that cataract in both eyes was the cause of the visual impairment, based on the medical record; an additional inclusion criterion was best-corrected visual acuity in one eye of 20/40 or worse. A further study in the same group demonstrated that drivers with a history of crash involvement were eight times more likely to have a serious contrast sensitivity deficit (defined as a Pelli-Robson score of 1.25 or less) in the worse eye than those who had no history of crash involvement. A severe contrast sensitivity deficit in only one eye was still significantly associated with crash involvement.

Binocular vision is better than the vision of a single eye. The simultaneous use of the two eyes is complex and requires the integration of disparate images from each eye. A study demonstrated that binocular vision resulted in better perception of form, color, and the relationship of the body to the environment, which facilitated manipulation, reaching, and balance, particularly under dim illumination. However, if the vision of one eye is reduced due to cataract, visual performance can fall below the level of monocular vision by a mechanism known as binocular inhibition, which reduces patients' visual acuity and contrast sensitivity. A study of the Framingham Study Cohort found that poor vision in one or both eyes was associated with an increased risk of hip fracture. It also found that patients with good vision in one eye and moderately impaired vision in the other eye had a higher risk of fracture than those with similar visual impairment in both eyes. A study of 150 patients before and after cataract surgery found that poor binocular visual acuity was related to more problems in activities of daily living. Another study, based on patients who reported no beneficial outcomes after first-eye cataract surgery in the National Swedish Cataract Outcome register, found that anisometropia was the reason for the poor outcome in one-third of cases. These studies have shown that second-eye surgery is important to visual and physical function.

In summary, these studies demonstrate that physical function, emotional well-being, and overall quality of life can be enhanced when visual function is restored by cataract extraction.

Improved visual function as a result of cataract surgery includes the following:
- Better optically corrected vision
- Better uncorrected vision with reduced spectacle dependence
- Increased ability to read or do near work
- Reduced glare
- Improved ability to function in dim levels of light
- Improved depth perception and binocular vision
- Improved color vision

Improved physical function as a critical outcome of cataract surgery includes the following:
- Increased ability to perform activities of daily living
- Increased opportunity to continue or resume an occupation
- Increased mobility (walking, driving)

Improved mental health and emotional well-being as a second critical outcome of cataract surgery includes the following benefits:
- Improved self-esteem and independence
- Increased ability to avoid injury
- Increased social contact and ability to participate in social activities
- Relief from fear of blindness

Most patients achieve improved visual function after cataract surgery. This outcome is achieved consistently through careful attention through the patient selection process, accurate measurement of axial length and corneal power, appropriate selection of an IOL power calculation formula, etc. As such, it reflects the care and diligence with which the surgery is assessed, planned and executed. Failure to achieve this after surgery would reflect patterns of patient selection or treatment that should be assessed for opportunities for improvement.

Sometimes cataract surgery is performed for other medical reasons other than to improve impaired visual function caused by cataract. These circumstances include the following: clinically significant anisometropia in the presence of a cataract; when the lens opacity interferes with optimal diagnosis or management of posterior segment conditions, when the lens causes inflammation (phacolysis, phacoanaphylaxis) and when the lens induces angle closure (phacomorphic or phacotopic). In these situations, improved visual function as a result of the removal of the cataract is not expected, because of the pre-existing comorbid conditions.

2. Evidence of a Gap in Care
This is an outcome of surgery indicator of direct relevance and import to patients, their families and referring providers. The available evidence suggests that cataract surgery achieves this in about 90% of patients. While the potential for improvement is seemingly small, the volume of cataract surgery in the U.S. of over 2.8 million surgeries means that the impact could affect more than 100,000 patients per year. Ideally, performance on this indicator would be as high as possible, with lower rates suggestive of opportunities for improvement.

3. Sampling Strategy
The survey methodology is described as follows. The survey could be administered by a third party or a registry for reporting of PQRS measures to prevent or minimize bias which might be introduced if it is an in-office paper survey with questions asked by the office staff. Options would be provided to the patient, either online survey, mail survey or phone survey (third party or registry only), depending on their preferences and abilities.

The survey would be of a sample of those individuals with cataract surgery. The sample size would be postulated at 20, because this is a well-accepted statistical sample and used by the CMS for reporting on measure groups in PQRS. Because visual function is reported at 90 days after surgery, this would allow physicians to identify 20 cases from January – September for reporting purposes.

4. Improvement in Visual Function
The strategy to identify improvement in visual function is as follows. The instrument proposed for visual function evaluation is the Rasch-scaled Short Version of the Visual Function-14, VF-8R. Reliability and validity testing have been performed on the VF-14 as well as the VF-8R. This instrument is scored on a scale of 0-100, with 0 indicating the lack of ability to perform functional activities and 100 indicating complete ability to perform functional activities. The difference between the pre-operative and post-operative scores on the VF-8R indicates a change in functional activities. Improvement in visual function would be defined as an increase in the visual function score between pre-operative and post-operative assessment on the VF-8R in the range of 5 points or greater.

**CLINICAL RECOMMENDATION STATEMENTS:**
This is an outcomes measure. As such, there are no recommendation statements in the guideline specific to this measurement topic.
MEASURE #304 - CATARACTS: PATIENT SATISFACTION WITHIN 90 DAYS FOLLOWING CATARACT SURGERY

RATIONALE:

1) Scientific Basis for Measuring Patient Satisfaction after Cataract Surgery

Patient satisfaction is a valuable performance indicator for measuring the quality of care delivered by ophthalmologists providing cataract surgery. In the broadest sense, patient satisfaction is an assessment of the patient’s experience with the care process delivered by health plans, clinicians, health systems, hospitals, etc. This experience can cover domains as diverse as information/education, interpersonal manner, emotional support, accessibility, convenience, outcomes or results, environment, personalization, involvement in care, finances, etc.

In 1996, The American Academy of Ophthalmology launched the National Eyecare Outcomes Network (NEON) database. From January 1, 1996 through March 30, 2001, 249 ophthalmologists at 114 different practice sites submitted data to the NEON cataract surgery database. Post-operative patient satisfaction responses were collected for 6,154 patients, or about 34.5% of all patients who had pre-operative forms submitted. This assessment was performed at a median of 4.1 weeks postoperatively for all patients enrolled in the database. A 12-item questionnaire was used to assess patient satisfaction. Patient satisfaction was associated with younger age and absence of ocular comorbidity.

Other studies of patient satisfaction after cataract surgery were conducted in Austria and in Spain. The Austrian study found that patients with pre-existing eye disease, including those patients with improved visual acuity after surgery, were the least satisfied with the results of surgery. In these cases, improved patient education prior to surgery could be helpful in improving patient satisfaction. The Spanish study found that patient satisfaction was associated with expectations prior to surgery.

Most patients are satisfied with their care and results after cataract surgery. This outcome is achieved consistently through careful attention through the patient selection process, accurate measurement of axial length and corneal power, appropriate selection of an IOL power calculation formula, etc. As such, it reflects the care and diligence with which the surgery is assessed, planned and executed. Failure to achieve this satisfaction after surgery would reflect patterns of patient selection or treatment that should be assessed for opportunities for improvement.

Use of this indicator in PQRS claims-based reporting method would require some modification to the current reporting of post-operative care for patients undergoing cataract surgery, since this indicator would be operative during the 90 day global period. However, there is a strong and practical precedent for such modifications in that reporting arrangements have previously been made to accommodate co-management of care by different providers during the post-operative period. A similar adjustment to allow for filing of a claim of meeting this goal at one point in the 90 day global period would be sufficient, potentially drawing upon the methods to demarcate the onset of co-management transfer of post-operative care.

Various patient satisfaction instruments exist, but an instrument developed by the program, Consumer Assessment of Healthcare Providers and Systems (CAHPS), Agency for Healthcare Research and Quality develops and supports the use of a comprehensive and evolving family of standardized surveys that ask consumers and patients to report on and evaluate their experiences with health care. These surveys cover topics that are important to consumers, such as the communication skills of providers and the accessibility of services. AHRQ first launched the CAHPS program in October 1995 in response to concerns about the lack of good information about the quality of health plans from the enrollees’ perspective. At that time, numerous public and private organizations collected information on enrollee and patient satisfaction, but the surveys varied from sponsor to sponsor and often changed from year to year.

The CAHPS Surgical Care Survey asks adult patients to report on surgical care, surgeons, their staff, and anesthesiologists. It was developed by the American College of Surgeons and the Surgical Quality Alliance to assess patients’ experiences before, during, and after surgery. In early 2010, the CAHPS Consortium
voted to adopt the Surgical Care Survey as an official CAHPS survey. The Surgical Care Survey expands on the current CAHPS Clinician & Group Survey, which focuses on primary and specialty care, by incorporating domains that are relevant to surgical care, such as informed consent, anesthesia care, and post-operative follow-up. The survey is unique in that it assesses patients' experiences with surgical care in both the inpatient and outpatient settings by asking respondents about their care before, during, and after surgery.

The main purpose of the CAHPS Surgical Care Survey is to address the need to assess and improve the experiences of surgical patients. Like other CAHPS surveys, this questionnaire focuses on aspects of surgical quality that are important to patients and for which patients are the best source of information. The survey results are expected to be useful to everyone with a need for information on the quality of surgeons and surgical care, including patients, practice groups, health plans, insurers, and specialty boards. Patients can use the information to help make better and more informed choices about their surgical care. Practices, health plans, and insurers can use the survey results for quality improvement initiatives and incentives. Specialty boards may use the survey for maintenance of certification.

The composite measures of surgical quality from the S-CAPHS that are most relevant and significant for this physician-level performance measure include:

- How well surgeon communicates with patients before surgery
- How well surgeon communicates with patients after surgery
- Rating of overall care from this surgeon

2) Evidence of a Gap in Care
This is an outcome of surgery indicator of direct relevance and importance to patients, their families and referring providers. The available evidence suggests that cataract surgery achieves this in about 90% of patients. While the potential for improvement appears seemingly small, the volume of cataract surgery in the U.S. of over 2.8 million surgeries means that the impact could affect more than 100,000 patients per year. Ideally performance on this indicator should be as high as possible, with rates lower than 95-100% suggestive of opportunities for improvement.

3) Sampling Strategy
The survey methodology is described as follows. The survey could be administered by a third party or a registry for reporting of PQRS measures to prevent or minimize bias which might be introduced if it is an in office paper survey with questions asked by the office staff. Options would be provided to the patient, either online survey, mail survey or phone survey (third party or registry only), depending on their preferences and abilities.

The survey would be of a sample of those individuals with cataract surgery. The sample size would be postulated at 20, because this is a well-accepted statistical sample and used by the CMS for reporting on measure groups in PQRS. Because patient satisfaction is reported at 90 days after surgery, this would allow physicians to identify 20 cases from January – August for reporting purposes.

4) Definition of Patient Satisfaction
The strategy for defining patient satisfaction is described as follows. CAHPS scores are actually normative scores, that is, they provide relative rankings rather than absolute rankings (where a score is compared with an 'objective criterion'). Patient satisfaction would be defined as a score above the lowest 5% of scores on the CAHPS.

**CLINICAL RECOMMENDATION STATEMENTS:**
This is an outcomes measure. As such, there are no recommendation statements in the guideline specific to this measurement topic.
MEASURE #388 - CATARACT SURGERY WITH INTRA-OPERATIVE COMPLICATIONS (UNPLANNED RUPTURE OF POSTERIOR CAPSULE REQUIRING UNPLANNED VITRECTOMY)

RATIONALE:
Unplanned anterior vitrectomies are performed following cataract surgery when vitreous inadvertently prolapses into the anterior segment of the eye. This may result in poor visual outcome and additional complications, including retinal detachment. Studies have shown unplanned Vitrectomy Rates ranging from 1% to 4%. The literature states that this complication occurs more commonly for inexperienced surgeons. References: 1. D.F Chang, Cataract Surgery Complication Rates, How are we doing? Cataract and Refractive Surgery Feb 2012 2. Australasian Clinical Indicator Report 2004-2011, Summary of Results; Ophthalmology; 3. Chan, FM, Au Eong, KG, Phacoemulsification Cataract Surgery and Unplanned Anterior Vitrectomy - it can be bad news, Eye (2003)17, 679

CLINICAL RECOMMENDATION STATEMENTS:
This is an outcome measure. As such, no clinical recommendations are included.

MEASURE #389 - CATARACT SURGERY: DIFFERENCE BETWEEN PLANNED AND FINAL REFRACTION

RATIONALE:
Refractive Outcome is important to the patient and to the surgeon. Planned refraction is something the surgeon and patient discuss at the time of assessment for cataract surgery and is a way to align patient and surgeon expectations of the outcome. Comparing actual outcome to predicted outcome is a valuable measure of success. Kugelberg and Lundstrom published outcomes data from the Swedish registry and found in routine cataract surgeries 75% to 90% of patients ended up with refraction within 1 Diopter of the target refraction. The study describes factors that influenced refractive outcome as older age and use of a clear corneal incision. High volume ophthalmology departments showed a significant difference in absolute prediction error. Another 2009 study by Gale and colleagues reported outcomes improving from 79.7% to 87% within 3 measurement cycles and the authors suggested that a benchmark standard of 85% be established. References: 1. Kugelberg, M.A. and Lundstrom, M, Refractive Outcome After Cataract Surgery, Cataract & Refractive Surgery Today Europe, May 2009: 2. Gale, RP, Johnston, RL, Zuberbuhler, B, McKibbin, M, Benchmark Standards for refractive Outcomes After Cataract Surgery, Eye (London) 2009 Jan;23 (1) 149-52, Kugelberg M, Lundstrom M. Factors related to the degree of success in achieving target refraction in cataract surgery. J Cat Refr Surg 2008;34(11):1935-39., Massachusetts Eye And Ear Infirmary, Harvard Medical School. Ophthalmology Quality & Outcomes Report 2013., Lum F, Schein O, Schachat AP, Abbott RL, Hoskins HD, Steinberg EP. Initial two years of experience with the AAO Nation Eyecare Outcomes Network (NEON) cataract surgery database. Ophthalmology 2000;107:691-97

CLINICAL RECOMMENDATION STATEMENTS:
This is an outcome measure. As such, no clinical recommendations are included.
ONCOLOGY MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN ONCOLOGY MEASURES GROUP:

#71 Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer
#72 Colon Cancer: Chemotherapy for AJCC Stage III Colon Cancer Patients
#110 Preventive Care and Screening: Influenza Immunization
#130 Documentation of Current Medications in the Medical Record
#143 Oncology: Medical and Radiation – Pain Intensity Quantified
#144 Oncology: Medical and Radiation – Plan of Care for Pain
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G8977: I intend to report the Oncology Measures Group

- Report the patient sample method:
  **20 Patient Sample Method:** 20 unique procedures (patients – a majority of which must be Medicare Part B FFS [fee for service] patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Oncology Measures Group are patients aged 18 years and older with a specific diagnosis of cancer, accompanied by a specific patient encounter:

  **One of the following diagnosis codes indicating cancer:**
  ICD-10-CM: C00.0, C00.1, C00.2, C00.3, C00.4, C00.5, C00.6, C00.8, C00.9, C01, C02.0, C02.1, C02.2, C02.3, C02.4, C02.8, C02.9, C03.0, C03.1, C03.9, C04.0, C04.1, C04.8, C04.9, C05.0, C05.1, C05.2, C05.8, C05.9, C06.0, C06.1, C06.2, C06.80, C06.89, C06.9, C07, C08.0, C08.1, C08.9, C09.0, C09.1, C09.8, C09.9, C10.0, C10.1, C10.2, C10.3, C10.4, C10.8, C10.9, C11.0, C11.1, C11.2, C11.3, C11.8, C11.9, C12, C13.0, C13.1, C13.2, C13.8, C13.9, C14.0, C14.2, C14.8, C15.3, C15.4, C15.5, C15.8, C15.9, C16.0, C16.1, C16.2, C16.3, C16.4, C16.5, C16.6, C16.8, C16.9, C17.0, C17.1, C17.2, C17.3, C17.8, C17.9, C18.0, C18.1, C18.2, C18.3, C18.4, C18.5, C18.6, C18.7, C18.8, C18.9, C19, C20, C21.0, C21.1, C21.2, C21.8, C22.0, C22.1, C22.2, C22.3, C22.4, C22.7, C22.8, C22.9, C23, C24.0, C24.1, C24.8, C24.9, C25.0, C25.1, C25.2, C25.3, C25.4, C25.7, C25.8, C25.9, C26.0, C26.1, C26.9, C30.0, C30.1, C31.0, C31.1, C31.2, C31.3, C31.8, C31.9, C32.0, C32.1, C32.2, C32.3, C32.8, C33, C34.00, C34.01, C34.02, C34.10, C34.11, C34.12, C34.2, C34.30, C34.31, C34.32, C34.80, C34.81, C34.82, C34.90, C34.91, C34.92, C37, C38.0, C38.1, C38.2, C38.3, C38.4, C38.8, C39.0, C39.9, C40.00, C40.01, C40.02, C40.10, C40.11, C40.12, C40.20, C40.21, C40.22, C40.30, C40.31, C40.32, C40.80, C40.81, C40.82, C40.90, C40.91, C40.92, C41.0, C41.1, C41.2, C41.3, C41.4, C41.9, C43.0, C43.10, C43.11, C43.12, C43.20, C43.21, C43.22, C43.30, C43.31, C43.39, C43.4, C43.51, C43.52, C43.59, C43.60, C43.61, C43.62, C43.70, C43.71, C43.72, C43.8, C43.9, C44.00, C44.01, C44.02, C44.09, C44.101, C44.102, C44.109, C44.111, C44.112, C44.119, C44.121, C44.122, C44.129, C44.191, C44.192, C44.199, C44.201, C44.202, C44.209, C44.211, C44.212, C44.219, C44.221, C44.222, C44.229, C44.291, C44.292, C44.299, C44.300, C44.301, C44.309, C44.310, C44.311, C44.319, C44.320, C44.321, C44.329, C44.390, C44.391, C44.392, C44.40, C44.41, C44.42, C44.49, C44.500, C44.501, C44.509, C44.510, C44.511, C44.519, C44.520, C44.521, C44.529, C44.590, C44.591, C44.599, C44.601, C44.602, C44.609, C44.611, C44.612, C44.619, C44.621, C44.622, C44.629, C44.691, C44.692, C44.699, C44.701, C44.702, C44.709, C44.711, C44.712,
Accompanied by:

One of the following patient encounter codes: 77427, 77431, 77432, 77435, 77470

OR

One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

AND

Patient encounter during the reporting period - Procedure codes: 51720, 96401, 96402, 96405, 96406, 96409, 96411, 96413, 96415, 96416, 96417, 96420, 96422, 96423, 96425, 96440, 96446, 96450, 96521, 96522, 96523, 96542, 96549

- To satisfactorily report the Oncology Measures Group requires reporting a numerator option on all applicable measures, for each patient (unique procedure) within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #71 only needs to be reported when the patient is female and has one of the following diagnosis code indicating breast cancer:
  
  **ICD-10-CM:**
  
  C50.011, C50.012, C50.019, C50.111, C50.112, C50.119, C50.211, C50.212, C50.219, C50.311, C50.312, C50.319, C50.411, C50.412, C50.419, C50.511, C50.512, C50.519, C50.611, C50.612, C50.619, C50.811, C50.812, C50.819, C50.911, C50.912, C50.919
AND
AJCC Breast Cancer Stage I: TIC (tumor size > 1 cm to 2 cm), documented (3374F)
OR
AJCC Breast Cancer Stage II documented (3376F)
OR
AJCC Breast Cancer Stage III documented (3378F)

AND
Estrogen receptor (ER) or progesterone receptor (PR) positive breast cancer (3315F)

- Measure #72 only needs to be reported when the patient is 18 through 80 years old and has one of the following diagnosis code indicating colon cancer:
  ICD-10-CM: C18.0, C18.2, C18.3, C18.4, C18.5, C18.6, C18.7, C18.8, C18.9
  AND
  AJCC Colon Cancer, Stage III documented (3388F)

- Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2015-2016 influenza season OR between October and December for the 2016-2017 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate.

- Measure #143 eligible encounters for patients receiving chemotherapy will include an encounter where the patient has been administered chemotherapy within 30 days prior to the encounter and also has been administered chemotherapy within 30 days after the date of the encounter.

- Measure #144 only needs to be reported when patients are identified in Measure #143 with pain present (1125F).

- Instructions for qualifying numerator option reporting for each of the measures within the Oncology Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  Composite QDC G8953: All quality actions for the applicable measures in the Oncology Measures Group have been performed for this patient

- Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Oncology Measures Group - Measure #71: Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer would not be applicable to male patients according to the patient sample criteria). If the measure is
not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.

**DESCRIPTION:**
Percentage of female patients aged 18 years and older with Stage I-IIIc, ER or PR positive breast cancer who were prescribed tamoxifen or aromatase inhibitor (AI) during the 12-month reporting period

**NUMERATOR:**
Patients who were prescribed tamoxifen or aromatase inhibitor (AI) during the 12-month reporting period

**Definition:**
Prescribed – Prescribed may include prescription given to the patient for tamoxifen or aromatase inhibitor (AI) at one or more visits in the 12-month period OR patient already taking tamoxifen or aromatase inhibitor (AI) as documented in the current medication list.

**Numerator Options:**

**Performance Met:**
- Tamoxifen or aromatase inhibitor (AI) prescribed (4179F)

**Medical Performance Exclusion:**
- Documentation of medical reason(s) for not prescribing tamoxifen or aromatase inhibitor (e.g., patient's disease has progressed to metastatic, patient is receiving a gonadotropin-releasing hormone analogue, patient has received oophorectomy, patient is receiving radiation or chemotherapy, patient's diagnosis date was > 5 years from reporting date, patient's diagnosis date is within 120 days of the end of the 12 month reporting period, other medical reasons) (4179F with 1P)

**Patient Performance Exclusion:**
- Documentation of patient reason(s) for not prescribing tamoxifen or aromatase inhibitor (e.g., patient refusal, other patient reasons) (4179F with 2P)

**System Performance Exclusion:**
- Documentation of system reason(s) for not prescribing tamoxifen or aromatase inhibitor (e.g., patient is currently enrolled in a clinical trial, other system reasons) (4179F with 3P)

**Performance Not Met:**
- Tamoxifen or aromatase inhibitor not prescribed, reason not otherwise specified (4179F with 8P)
Measure #72 (NQF 0385): Colon Cancer: Chemotherapy for AJCC Stage III Colon Cancer Patients

-- National Quality Strategy Domain: Effective Clinical Care

**DESCRIPTION:**
Percentage of patients aged 18 through 80 years with AJCC Stage III colon cancer who are referred for adjuvant chemotherapy, prescribed adjuvant chemotherapy, or have previously received adjuvant chemotherapy within the 12-month reporting period

**NUMERATOR:**
Patients who are referred for adjuvant chemotherapy, prescribed adjuvant chemotherapy, or who have previously received adjuvant chemotherapy within the 12 month reporting period

**Definitions:**

**Adjuvant Chemotherapy** – According to current NCCN guidelines, the following therapies are recommended: 5-FU/LV/oxaliplatin (FOLFOX) or capecitabine/oxaliplatin (CapeOx) (both category 1 and preferred); bolus 5-FU/LV/oxaliplatin (FLOX) (category 1); or single-agent capecitabine or 5-FU/LV in patients felt to be inappropriate for oxaliplatin therapy (NCCN). See clinical recommendation statement for cases where leucovorin is not available.

**Prescribed** – May include prescription ordered for the patient for adjuvant chemotherapy at one or more visits in the 12 month period OR patient already receiving adjuvant chemotherapy as documented in the current medication list.

**Numerator Options:**

**Performance Met:** Adjuvant chemotherapy referred, prescribed or previously received for AJCC Stage III, colon cancer (G8927)

**Other Performance Exclusion:** Adjuvant chemotherapy not prescribed or previously received for documented reasons (e.g., medical co-morbidities, diagnosis date more than 5 years prior to the current visit date, patient’s diagnosis date is within 120 days of the end of the 12 month reporting period, patient’s cancer has metastasized, medical contraindication/allergy, poor performance status, other medical reasons, patient refusal, other patient reasons, patient is currently enrolled in a clinical trial that precludes prescription of chemotherapy, other system reasons) (G8928)

**Performance Not Met:** Adjuvant chemotherapy not prescribed or previously received, reason not given (G8929)
Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

NUMERATOR:
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

Numerator Instructions:
- If reporting this measure between January 1, 2016 and March 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2015 or January, February, and March of 2016 for the flu season ending March 31, 2016.
- If reporting this measure between October 1, 2016 and December 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2016 for the flu season ending March 31, 2017.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2015-2016 flu season OR 2016-2017 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, G8482 should be reported.

Definition:
Previous Receipt - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

NUMERATOR NOTE: The numerator for this measure can be met by reporting either administration of an influenza vaccination or that the patient reported previous receipt of the current season’s influenza immunization. If the performance of the numerator is not met, a clinician can report a valid performance exclusion for having not administered an influenza vaccination. For clinicians reporting a performance exclusion for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

Numerator Options:
Performance Met: Influenza immunization administered or previously received (G8482)

OR

Other Performance Exclusion: Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) (G8483)

OR

Performance Not Met: Influenza immunization was not administered, reason not given (G8484)
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record --
National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a
list of current medications using all immediate resources available on the date of the encounter. This list must
include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements
AND must contain the medications’ name, dosage, frequency and route of administration

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all
immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-
counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name,
dosages, frequency and route of administration

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-
counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name,
dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not
limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
• Patient is in an urgent or emergent medical situation where time is of the essence and to delay
treatment would jeopardize the patient’s health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained,
updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this
measure may document medication information received from the patient, authorized representative(s),
caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional
documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met: Eligible professional attests to documenting in the
medical record they obtained, updated, or reviewed the
patient’s current medications (G8427)

OR

Other Performance Exclusion: Eligible professional attests to documenting in the
medical record the patient is not eligible for a current list
of medications being obtained, updated, or reviewed by
the eligible professional (G8430)

OR

Performance Not Met: Current list of medications not documented as obtained,
updated, or reviewed by the eligible professional,
reason not given (G8428)
Measure #143 (NQF 0384): Oncology: Medical and Radiation – Pain Intensity Quantified -- National Quality Strategy Domain: Person and Caregiver-Centered Experience and Outcomes

DESCRIPTION:
Percentage of patient visits, regardless of patient age, with a diagnosis of cancer currently receiving chemotherapy or radiation therapy in which pain intensity is quantified

NUMERATOR:
Patient visits in which pain intensity is quantified

Numerator Instructions: Pain intensity should be quantified using a standard instrument, such as a 0-10 numerical rating scale, visual analog scale, a categorical scale, or the pictorial scale.

Numerator Options:
Performance Met:
Pain severity quantified; pain present (1125F)

OR
Performance Met:
Pain severity quantified; no pain present (1126F)

OR
Performance Not Met:
Pain severity not documented, reason not otherwise specified (1125F with 8P)
Measure #144 (NQF 0383): Oncology: Medical and Radiation – Plan of Care for Pain -- National Quality Strategy Domain: Person and Caregiver-Centered Experience and Outcomes

DESCRIPTION:
Percentage of visits for patients, regardless of age, with a diagnosis of cancer currently receiving chemotherapy or radiation therapy who report having pain with a documented plan of care to address pain

NUMERATOR:
Patient visits that included a documented plan of care to address pain

Numerator Instructions: A documented plan of care may include: use of opioids, nonopioid analgesics, psychological support, patient and/or family education, referral to a pain clinic, or reassessment of pain at an appropriate time interval.

Numerator Options:
Performance Met: Plan of care to address pain documented (0521F)

OR

Performance Not Met: Plan of care for pain not documented, reason not otherwise specified (0521F with 8P)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention – National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user.

Definitions:
Tobacco Use – Includes use of any type of tobacco.
Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:

Performance Met:
Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F).

OR
Performance Met:
Current tobacco non-user (1036F).

OR
Medical Performance Exclusion:
Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P).

OR
Performance Not Met:
Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P).
MEASURE #71 - BREAST CANCER: HORMONAL THERAPY FOR STAGE IC-IIIC ESTROGEN RECEPTOR/PROGESTERONE RECEPTOR (ER/PR) POSITIVE BREAST CANCER

RATIONALE:
Despite evidence suggesting the role of adjuvant endocrine therapy in lowering the risk of tumor recurrence, many female patients who should be receiving this therapy are not. This measure assesses whether patients with a certain stage of breast cancer (IC through IIIC) and ER/PR+ are currently receiving the therapy. There are allowable medical, patient, and system reasons to document instances in which a woman with stage IC through IIIC, ER/PR+ may not be a candidate for the therapy.

Note: The reporting/managing physician does not need to have actually written the prescription; however, the reporting/managing physician must verify that the patient already has been prescribed the hormonal therapy by another physician.

CLINICAL RECOMMENDATION STATEMENTS:

1. Women diagnosed with hormone receptor-positive breast cancer who are pre- or perimenopausal should be offered adjuvant endocrine therapy with:
   a. Tamoxifen for an initial duration of 5 years.
   b. After 5 years, women should receive additional therapy based on menopausal status.
      i. If women are pre- or perimenopausal, or if menopausal status is unknown or cannot be determined, they should be offered continued tamoxifen for a total duration of 10 years. (Type: Evidence-Based, Evidence Quality: High, Strength of Recommendation: Strong)
      ii. If women have become definitively postmenopausal, they should be offered continued tamoxifen for a total duration of 10 years or switching to up to 5 years of an aromatase inhibitor (AI), for a total duration of up to 10 years of adjuvant endocrine therapy. (Type: Evidence-Based, Evidence Quality for tamoxifen: High, Evidence Quality for AI: High, Strength of Recommendation: Strong)

2. Women diagnosed with hormone receptor-positive breast cancer who are postmenopausal should be offered adjuvant endocrine therapy with one of the following options:
   a. Tamoxifen for a duration of 10 years. (Type: Evidence-Based, Evidence Quality: High, Strength of Recommendation: Strong) Or
   b. An AI for a duration of 5 years. There are insufficient data currently to recommend an AI for a duration of greater than 5 years. (Type: Evidence-Based, Evidence Quality: High, Strength of Recommendation: Strong) Or
   c. Tamoxifen for an initial duration of 5 years, then switching to an AI for up to 5 years, for a total duration of up to 10 years of adjuvant endocrine therapy. (Type: Evidence-Based, Evidence Quality: High, Strength of Recommendation: Strong) Or
   d. Tamoxifen for a duration of 2 to 3 years and switching to an AI for up to 5 years, for a total duration of up to 7 to 8 years of adjuvant endocrine therapy. (Type: Evidence-Based, Evidence Quality: High, Strength of Recommendation: Strong)

3. Women who are postmenopausal and are intolerant of either tamoxifen or an AI should be offered the alternative type of adjuvant endocrine therapy.
4. Women who have received 5 years of tamoxifen as adjuvant endocrine therapy should be offered additional adjuvant endocrine treatment.

   a. If women are postmenopausal, they should be offered continued tamoxifen for a total duration of 10 years or switching to up to 5 years AI, for a total duration of up to 10 years of adjuvant endocrine therapy. (Type: Evidence-Based, Evidence Quality: High, Strength of Recommendation: Strong)

   b. If women are pre- or perimenopausal, or menopausal status cannot be ascertained, they should be offered 5 additional years of tamoxifen, for a total duration of 10 years of adjuvant endocrine therapy. (Type: Evidence-Based, Evidence Quality: High, Strength of Recommendation: Strong) (ASCO, 2014)

Patients with invasive breast cancers that are ER- or PR-positive should be considered for adjuvant endocrine therapy regardless of patient age, lymph node status, or whether adjuvant chemotherapy is to be administered. (NCCN, 2014)

The most firmly established adjuvant endocrine therapy is tamoxifen for both premenopausal and postmenopausal women. In women with ER-positive breast cancer, adjuvant tamoxifen decreases the annual odds of recurrence by 39% and the annual odds of death by 31% irrespective of the use of chemotherapy, patient age, menopausal status, or ALN status. In patients receiving both tamoxifen and chemotherapy, chemotherapy should be given first, followed by sequential tamoxifen. Prospective, randomized trials have demonstrated that 5 years of tamoxifen is more effective than 1 to 2 years of tamoxifen. (NCCN, 2014)

Patients with lymph node involvement or with tumors greater than 1cm in diameter are appropriate candidates for adjuvant systemic therapy (category 1). For women with lymph node-negative, hormone receptor-negative tumors greater than 1 cm in diameter, chemotherapy is recommended (category 1). For those with lymph node-negative, hormone receptor-positive breast cancer tumors greater than 1 cm, endocrine therapy with chemotherapy is recommended (category 1). (NCCN, 2014)

MEASURE #72 - COLON CANCER: CHEMOTHERAPY FOR AJCC STAGE III COLON CANCER PATIENTS

RATIONALE:
The receipt of adjuvant chemotherapy in AJCC Stage III colon cancer patients following primary surgical treatment is associated with a significant survival benefit.

CLINICAL RECOMMENDATION STATEMENTS:
For patients with stage III disease, the panel recommends 6 months of adjuvant chemotherapy after primary surgical treatment. The treatment options are: FOLFOX or CapeOx (both category 1 and preferred); FLOX (category 1); or single-agent capecitabine or 5-FU/LV in patients for whom oxaliplatin therapy is believed to be inappropriate. (NCCN, 2015)

A shortage of LV recently existed in the United States. No specific data are available to guide management under these circumstances, and all proposed strategies are empiric. The panel recommends several possible options to help alleviate the problems associated with this shortage. One is the use of levoleucovorin, which is commonly used in Europe. A dose of 200 mg/m2 of leucovorin is equivalent to 400 mg/m2 of standard LV. Another option is for practices or institutions to use lower doses of LV for all doses in all patients, because the panel feels that lower doses are likely to be as efficacious as higher doses, based on several studies. Finally, if none of the above options is
available, treatment without LV would be reasonable. For patients who tolerate this without grade II or higher toxicity, a modest increase in 5-FU dose (in the range of 10%) may be considered. (NCCN, 2015)

**MEASURE #110 - PREVENTIVE CARE AND SCREENING: INFLUENZA IMMUNIZATION**

**RATIONALE:**
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged ≥6 months who do not have contraindications. Vaccination optimally should occur before onset of influenza activity in the community. Health care providers should offer vaccination soon after vaccine becomes available (by October, if possible). Vaccination should be offered as long as influenza viruses are circulating. (CDC/ACIP, 2014)

**MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD**

**RATIONALE:**
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADES in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)
Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**

The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare
stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, _The Physician’s Role in Medication Reconciliation_, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

**MEASURE #143 - ONCOLOGY: MEDICAL AND RADIATION – PAIN INTENSITY QUANTIFIED**

**RATIONALE:**
Inadequate cancer pain management is widely prevalent, harmful to the patient and costly.

**CLINICAL RECOMMENDATION STATEMENTS:**
This algorithm begins with the premise that all patients with cancer should be screened for pain during the initial evaluation, follow-up intervals, and whenever new therapy is initiated. If pain is present on a screening evaluation, the pain intensity must be quantified by the patient (whenever possible). Since pain is inherently subjective, patients’ self-reporting of pain is the current standard of care for assessment. (NCCN, 2014)

Intensity of pain should be quantified using a numerical rating scale (ie, 0-10), visual analog scale, categorical scale, or pictorial scale (eg, The Faces Pain Rating Scale). Although pain is commonly assessed using numerical or categorical ratings, some patients may experience difficulty with these scales. The Faces Pain Rating Scale may be successful with patients who have difficulty with other scales, for example, children, the elderly, and patients with language or cultural differences or other communication barriers. (NCCN, 2014)

All patients should be routinely screened for pain, and when it is present, pain intensity should be recorded in highly visible ways that facilitate regular review by health care providers. A standard for pain assessment and documentation should be established in each setting to ensure that pain is recognized, documented, and treated promptly. (APS, 2005)

**MEASURE #144 - ONCOLOGY: MEDICAL AND RADIATION – PLAN OF CARE FOR PAIN**

**RATIONALE:**
Inadequate cancer pain management is widely prevalent, harmful to the patient, and costly.

**CLINICAL RECOMMENDATION STATEMENTS:**
If the Pain Rating Scale score is above 0, a comprehensive pain assessment is initiated. (NCCN, 2011)

For management of cancer related pain in adults, the algorithm distinguishes three levels of pain intensity, based on a 0-10 numerical value obtained using numerical or the pictorial rating scale (with 0 being no pain to 10 being the worst pain). The three levels of pain intensity listed in the algorithm are mild pain (1-3); moderate pain (4-6); and severe pain (7-10). (NCCN, 2011)

The [NCCN] guidelines acknowledge the range of complex decisions faced in caring for these patients. As a result, they provide dosing guidelines for opioids, non-opioid analgesics, and adjuvant analgesics. They also provide specific suggestions for titrating and rotating opioids, escalation of opioid dosage, management of opioid adverse effects, and when and how to proceed to other techniques/interventions for the management of cancer pain. (NCCN, 2011)

Treatment must be individualized based on clinical circumstances and patient wishes, with the goal of maximizing function and quality of life. (NCCN, 2011)
Clinicians must respond to pain reports in a manner appropriate to the type of pain (e.g., acute vs. chronic) and setting (e.g., inpatient vs. outpatient). Appropriate responses may not always include more opioids but rather more detailed assessments, use of nonopioid analgesics or techniques, or nonpharmacologic interventions (e.g., education, relaxation, and use of heat or cold). (APS, 2005)

MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION
RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (i.e., pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)
TOTAL KNEE REPLACEMENT (TKR) MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUP:

2016 PQRS MEASURES IN TOTAL KNEE REPLACEMENT MEASURES GROUP:

#130 Documentation of Current Medications in the Medical Record
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#350 Total Knee Replacement: Shared Decision-Making: Trial of Conservative (Non-surgical) Therapy
#351 Total Knee Replacement: Venous Thromboembolic and Cardiovascular Risk Evaluation
#352 Total Knee Replacement: Preoperative Antibiotic Infusion with Proximal Tourniquet
#353 Total Knee Replacement: Identification of Implanted Prosthesis in Operative Report

INSTRUCTIONS FOR REPORTING

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

  G9234: I intend to report the Total Knee Replacement Measures Group

- Report the patient sample method:

  20 Patient Sample Method via registries: 20 unique procedures (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the TKR Measures Group are patients regardless of age that have a specific procedure for TKR performed:

  One of the following patient procedure codes: 27438, 27442, 27446, 27447

- To satisfactorily report the TKR Measures Group requires reporting a numerator option on all applicable measures, for each patient (each isolated TKR procedure) within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measures #130 and #226 only need to be reported on patients aged 18 years and older.

- Instructions for qualifying numerator option reporting for each of the measures within the Total Knee Replacement (TKR) Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  Composite QDC G9233: All quality actions for the applicable measures in the Total Knee Replacement (TKR) Measures Group have been performed for this patient

- Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.
If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record -- National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
• Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met: Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)
OR
Other Performance Exclusion: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)
OR
Performance Not Met: Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

Definitions:
Tobacco Use – Includes use of any type of tobacco.
Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

OR
Performance Met: Current tobacco non-user (1036F)

OR
Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)

OR
Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)

**DESCRIPTION:**
Percentage of patients regardless of age or gender undergoing a total knee replacement with documented shared decision-making with discussion of conservative (non-surgical) therapy (e.g., non-steroidal anti-inflammatory drug (NSAIDs), analgesics, weight loss, exercise, injections) prior to the procedure.

**NUMERATOR:**
Patients with documented shared decision-making including discussion of conservative (non-surgical) therapy (e.g. NSAIDs, analgesics, weight loss, exercise, injections) prior to the procedure.

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<th>Numerator Options:</th>
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| **Performance Met:** | Patients with documented shared decision-making including discussion of conservative (non-surgical) therapy (e.g., NSAIDs, analgesics, weight loss, exercise, injections) prior to the procedure  
(G9296) |
| **Performance Not Met:** | Shared decision-making including discussion of conservative (non-surgical) therapy (e.g. NSAIDs, analgesics, weight loss, exercise, injections) prior to the procedure not documented, reason not given  
(G9297) |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DESCRIPTION:</strong></td>
</tr>
<tr>
<td>Percentage of patients regardless of age or gender undergoing a total knee replacement who are evaluated for the presence or absence of venous thromboembolic and cardiovascular risk factors within 30 days prior to the procedure (e.g. history of Deep Vein Thrombosis (DVT), Pulmonary Embolism (PE), Myocardial Infarction (MI), Arrhythmia and Stroke)</td>
</tr>
<tr>
<td><strong>NUMERATOR:</strong></td>
</tr>
<tr>
<td>Patients who are evaluated for the presence or absence of venous thromboembolic and cardiovascular risk factors within 30 days prior to the procedure (e.g., history of DVT, PE, MI, arrhythmia and stroke)</td>
</tr>
</tbody>
</table>

- **Numerator Options:**
  - **Performance Met:** Patients who are evaluated for venous thromboembolic and cardiovascular risk factors within 30 days prior to the procedure (e.g. history of DVT, PE, MI, arrhythmia and stroke) (G9298)  
  - **Performance Not Met:** Patients who are not evaluated for venous thromboembolic and cardiovascular risk factors within 30 days prior to the procedure including (e.g. history of DVT, PE, MI, arrhythmia and stroke), reason not given (G9299)
### Measure #352: Total Knee Replacement: Preoperative Antibiotic Infusion with Proximal Tourniquet – National Quality Strategy Domain: Patient Safety

**DESCRIPTION:**
Percentage of patients regardless of age or gender undergoing a total knee replacement who had the prophylactic antibiotic completely infused prior to the inflation of the proximal tourniquet

**NUMERATOR:**
Patients who had the prophylactic antibiotic completely infused prior to the inflation of the proximal tourniquet (tourniquet around the proximal thigh)

<table>
<thead>
<tr>
<th>Numerator Options:</th>
<th>Numerator Options:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance Met:</strong></td>
<td>Patients who had the prophylactic antibiotic completely infused prior to the inflation of the proximal tourniquet (G9301)</td>
</tr>
<tr>
<td><strong>Medical Performance Exclusion:</strong></td>
<td>Documentation of medical reason(s) for not completely infusing the prophylactic antibiotic prior to the inflation of the proximal tourniquet (e.g., a tourniquet was not used) (G9300)</td>
</tr>
<tr>
<td><strong>Performance Not Met:</strong></td>
<td>Prophylactic antibiotic not completely infused prior to the inflation of the proximal tourniquet, reason not given (G9302)</td>
</tr>
</tbody>
</table>

DESCRIPTION:
Percentage of patients regardless of age or gender undergoing a total knee replacement whose operative report identifies the prosthetic implant specifications including the prosthetic implant manufacturer, the brand name of the prosthetic implant and the size of each prosthetic implant

NUMERATOR:
Patients whose operative report identifies the prosthetic implant specifications including the prosthetic implant manufacturer, the brand name of the prosthetic implant and the size of each prosthetic implant

Numerator Options:
Performance Met:
Operative report identifies the prosthetic implant specifications including the prosthetic implant manufacturer, the brand name of the prosthetic implant and the size of each prosthetic implant (G9304)

OR

Performance Not Met:
Operative report does not identify the prosthetic implant specifications including the prosthetic implant manufacturer, the brand name of the prosthetic implant and the size of each prosthetic implant, reason not given (G9303)
TOTAL KNEE REPLACEMENT (TKR) MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD
RATIONALE:
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient’s medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient’s medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA’s published report, The Physician’s Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).
A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**

The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA's published report, The Physician's Role in Medication Reconciliation, identified the best practice medication reconciliation team as one that is multidisciplinary and--in all settings of care--will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team's variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.
MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION

RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #350 – TOTAL KNEE REPLACEMENT: SHARED DECISION MAKING: TRIAL OF CONSERVATIVE (NON-SURGICAL) THERAPY

RATIONALE:
A trial of non-surgical therapy should be used prior to surgery, when possible. Non-surgical therapy may include the use of NSAIDs, other analgesics, exercise, or injections. For patients with severe disability, the patient and surgeon may decide after a thorough review of conservative options that the optimal treatment is to proceed with the operative intervention.

This measure is designed for use by physicians and eligible health care professionals managing ongoing care for all patients undergoing a total knee replacement. This measure addresses the preoperative period.

CLINICAL RECOMMENDATION STATEMENTS:
AAOS 2008 Treatment Guideline of Osteoarthritis of the Knee (AAOS, 2008)
AAOS suggests that patients with symptomatic OA of the knee be encouraged to participate in self-management educational programs. (Level of Evidence II Grade B.)

AAOS recommends that patients with symptomatic OA of the knee who are overweight (BMI >25) should be encouraged to lose weight (a minimum of 5% of body weight) and maintain their weight at a lower level with an appropriate program for dietary modification and exercise. (Level of Evidence I Grade A.)

AAOS recommends that patients with symptomatic OA of the knee be encouraged to participate in low-impact aerobic fitness exercises. (Level of Evidence I Grade A.)

AAOS suggests that patients with symptomatic OA of the knee use patellar taping for short-term relief of pain and improvement in function. (Level of Evidence II Grade B.)

AAOS suggests that intra-articular corticosteroids be used for short-term pain relief for patients with symptomatic OA of the knee. (Level of Evidence II Grade B.)


Patients with knee OA who are not obtaining adequate pain relief and functional improvement from a combination of non-pharmacological and pharmacological treatment should be considered for joint replacement therapy.

**MEASURE #351 – TOTAL KNEE REPLACEMENT: VENOUS THROMBOEMBOLIC AND CARDIOVASCULAR RISK EVALUATION**

**RATIONALE:**
Prior to a total knee replacement the patient’s venous thromboembolic and cardiovascular risk should be evaluated. A population-based study of all Olmstead County, Minnesota, patients undergoing a total hip or knee arthroplasty from 1994 - 2008, reported that patients undergoing a total knee arthroplasty with a previous history of a cardiac event or a thromboembolic event were associated with an increased risk of a 90-day cardiac or thromboembolic event following surgery. (Singh JA, Jensen MR, Harmsen WS, Gabriel SE, Lewallen DG, 2011)

A study using the Danish national resident registries compared all patients undergoing a primary THR and TKR from 1998 – 2007 to control groups not undergoing one of the procedures and found that the AMI rate 2 weeks after TKR was increased 31-fold compared to the control group. (Lalmohamed A, Vestergaard P, Klop C, Grove EL, 2012)

Any preoperative disease state should be identified and managed prior to surgery to minimize the risk of the surgical procedure.

This measure is designed for use by physicians and eligible health care professionals managing ongoing care for all patients undergoing a total knee replacement. This measure addresses the preoperative period.

**CLINICAL RECOMMENDATION STATEMENT:**

In patients with known coronary artery disease (CAD) or the new onset of signs or symptoms suggestive of CAD, baseline cardiac assessment should be performed. In the asymptomatic patient, a more extensive assessment of history and physical is warranted in those individuals 50 years of age or older, because the evidence related to the determination of cardiac risk factors and derivation of a Revised Cardiac Risk Index occurred in this population. Preoperative cardiac evaluation must therefore be carefully tailored to the circumstances that have prompted the evaluation and to the nature of the surgical illness.

**MEASURE #352 – TOTAL KNEE REPLACEMENT: PREOPERATIVE ANTIBIOTIC INFUSION WITH PROXIMAL TOURNIQUET**

**RATIONALE:**
The Surgical Care Improvement Project (SCIP) evaluates the timing and appropriateness of the prophylactic antibiotic. This measure evaluates that the prophylactic antibiotic is completely infused prior to the inflation of the tourniquet.

This measure is designed for use by physicians and eligible health care professionals managing ongoing care for all patients undergoing a total knee replacement. This measure addresses the intraoperative period.

CLINICAL RECOMMENDATION STATEMENT:
National Surgical Infection Prevention Project Advisory Statement 2004 (Bratzler DW, Houck PM, 2005)

If a proximal tourniquet is used, the antimicrobial should be completely infused before inflation.

MEASURE #353 – TOTAL KNEE REPLACEMENT: IDENTIFICATION OF IMPLANTED PROSTHESIS IN OPERATIVE REPORT
RATIONALE:
It is important to capture the type of prosthesis used. The rates of prosthesis failure which will require a revision increases from 10 percent at 10 years to approximately 20 percent at 20 years following surgery. (National Institutes of Health, 2003) The FDA requires appropriate tracking of the device but this information may not be readily available to the surgeon performing the revision. The surgeon performing a future revision needs to be able to identify the prosthesis and size of the prosthesis that were used in the initial surgery, to determine if a complete revision is required or if a partial revision could be performed. The initial operative report should contain the necessary information which will ultimately help the future treating physician who performs the revision surgery.

This measure is designed for use by physicians and eligible health care professionals managing ongoing care for all patients undergoing a total knee replacement. This measure addresses the immediate postoperative period.

CLINICAL RECOMMENDATION STATEMENT:
Medical Device Tracking Requirements 2008 (Federal Register, 2008)

Effective tracking of devices from the manufacturing facility, through the distributor network (including distributors, retailers, rental firms and other commercial enterprises, device user facilities, and licensed practitioners) and ultimately, to the patient is necessary for the effectiveness of remedies prescribed by the act, such as patient notification (section 518 (a) of the act) or device recall (section 518 (e) of the act). 21 CFR 821.1 (b)

Effective tracking of devices from the manufacturing facility, through the distributor network (including distributors, retailers, rental firms and other commercial enterprises, device user facilities, and licensed practitioners) and ultimately, to the patient is necessary for the effectiveness of remedies prescribed by the act, such as patient notification (section 518 (a) of the act) or device recall (section 518 (e) of the act). 21 CFR 821.1 (b)
GENERAL SURGERY MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN GENERAL SURGERY MEASURES GROUP:
#130 Documentation of Current Medications in the Medical Record
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#354 Anastomotic Leak Intervention
#355 Unplanned Reoperation within the 30 Day Postoperative Period
#356 Unplanned Hospital Readmission within 30 Days of Principal Procedure
#357 Surgical Site Infection (SSI)
#358 Patient-Centered Surgical Risk Assessment and Communication

INSTRUCTIONS FOR REPORTING:
- The General Surgery Measures Group is relevant to the following surgical procedures:
  - Ventral Hernia
  - Appendectomy
  - AV Fistula
  - Cholecystectomy
  - Thyroidectomy
  - Mastectomy +/- Lymphadenectomy or Sentinel Lymph Node Biopsy (SLNB)
  - Partial Mastectomy or Breast Biopsy/Lumpectomy +/- Lymphadenectomy or SLNB
  - Bariatric Laparoscopic or Open Roux en Y Gastric Bypass
  - Bariatric Sleeve Gastrectomy
  - Colectomy

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G9237: I intend to report the General Surgery Measures Group

- Report the patient sample method:
  20 Patient Sample Method: 20 unique procedures (a majority of which must be Medicare Part B FFS [fee for service] patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the General Surgery Measures Group are patients aged 18 years and older that have a specific surgical procedure performed:

  One of the following procedure codes indicating general surgery: 19101, 19301, 19302, 19303, 19304, 19305, 19306, 19307, 36818, 36819, 36820, 36821, 36825, 36830, 43644, 43645, 43775, 43846, 43847, 44140, 44141, 44143, 44144, 44145, 44146, 44147, 44150, 44151, 44160, 44204, 44205, 44206, 44207, 44208, 44210, 44950, 44960, 44970, 47562, 47563, 47564, 47600, 47605, 47610, 49560, 49561, 49565, 49566, 49567, 49585, 49587, 49590, 49652, 49653, 49654, 49655, 49656, 49657, 60200, 60210, 60212, 60220, 60225, 60240, 60252, 60254, 60260, 60270, 60271

- To satisfactorily report the General Surgery Measures Group requires reporting a numerator option on all applicable measures, for each patient (unique procedure) within the eligible professional’s patient sample, a minimum of once during the reporting period. Include only procedures performed through December 1 of the reporting period.
• Measure #354 need only be reported when the patient has a procedure performed specific to gastric bypass surgery or colectomy as indicated by one of the following CPT procedure codes: 43644, 43645, 43846, 43847, 43775, 44140, 44141, 44143, 44144, 44145, 44146, 44147, 44150, 44151, 44160, 44204, 44205, 44206, 44207, 44208, 44210.

• Measure #358 does not need to be reported (is not applicable) when the patient has a procedure performed for one of the following AV Fistula CPT procedure codes: 36820, 36821, 36825. These codes are not available through a clinical data-based, patient-specific risk calculator.

• Instructions for qualifying numerator option reporting for each of the measures within the General Surgery Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

**Composite QDC G9235:** All quality actions for the applicable measures in the General Surgery Measures Group have been performed for this patient

• This measures group contains one or more inverse measures. An inverse measure is a measure that represents a poor clinical quality action as meeting performance for the measure. For these measures, a lower performance rate indicates a higher quality of clinical care. Composite codes for measures groups that contain inverse measures are only utilized when the appropriate quality clinical care is given.

• The composite code for this measures group may be reported when codes in the summary table below are applicable for reporting of each measure within the measures group.

**Table 11 - QDC Options**

<table>
<thead>
<tr>
<th>Measure</th>
<th>130</th>
<th>226</th>
<th>#354*</th>
<th>#355*</th>
<th>#356*</th>
<th>#357*</th>
<th>#358</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDC options for acceptable use of the composite QDC</td>
<td>G8427</td>
<td>4004F or 1036F</td>
<td>G9305</td>
<td>G9307</td>
<td>G9309</td>
<td>G9311</td>
<td>G9316</td>
</tr>
</tbody>
</table>

*Indicates an inverse measure

• Measure Group Reporting Calculations:

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.
When a lower rate indicates better performance, such as Measure #355, a 0% performance rate will be counted as satisfactorily reporting (100% performance rate would not be considered satisfactorily reporting).

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record -- National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
• Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met: Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

OR

Other Performance Exclusion: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR

Performance Not Met: Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention – National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

**NUMERATOR:**
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user.

**Definitions:**
- **Tobacco Use** – Includes use of any type of tobacco.
- **Tobacco Cessation Intervention** – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

**NUMERATOR NOTE:** In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

**Numerator Options:**

**Performance Met:**
- Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

**OR**

**Performance Met:**
- Current tobacco non-user (1036F)

**OR**

**Medical Performance Exclusion:**
- Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)

**OR**

**Performance Not Met:**
- Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)

DESCRIPTION:
Percentage of patients aged 18 years and older who required an anastomotic leak intervention following gastric bypass or colectomy surgery

NUMERATOR:
Intervention (via return to operating room, interventional radiology, or interventional gastroenterology) for presence of leak of endoluminal contents (such as air, fluid, GI contents, or contrast material) through an anastomosis. The presence of an infection/abscess thought to be related to an anastomosis, even if the leak cannot be definitively identified as visualized during an operation, or by contrast extravasation would also be considered an anastomotic leak.

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Numerator Options:
Performance Met: Intervention for presence of leak of endoluminal contents through an anastomosis required (G9306)
OR
Performance Not Met: Intervention for presence of leak of endoluminal contents through an anastomosis not required (G9305)
Measure #355: Unplanned Reoperation within the 30 Day Postoperative Period -- National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of patients aged 18 years and older who had any unplanned reoperation within the 30 day postoperative period

NUMERATOR:
Unplanned return to the operating room for a surgical procedure, for any reason, within 30 days of the principal operative procedure

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

NUMERATOR NOTE: This measure is not intended to capture patients who go back to the operating room within 30 days for a follow-up procedure based on the pathology results from the principal operative procedure or concurrent procedure. Examples: Exclude breast biopsies with return for re-excisions; insertion of port-a-cath for chemotherapy.

The return to the OR may occur at any hospital or surgical facility.

Numerator Options:
Performance Met: Unplanned return to the operating room for a surgical procedure, for any reason, within 30 days of the principal operative procedure (G9308)

OR

Performance Not Met: No return to the operating room for a surgical procedure, for any reason, within 30 days of the principal operative procedure (G9307)
Measure #356: Unplanned Hospital Readmission within 30 Days of Principal Procedure --
National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older who had an unplanned hospital readmission within 30 days of principal procedure

NUMERATOR:
Inpatient readmission to the same hospital for any reason or an outside hospital (if known to the surgeon), within 30 days of the principal surgical procedure

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Numerator Options:
Performance Met: Unplanned hospital readmission within 30 days of principal procedure (G9310)

OR

Performance Not Met: No unplanned hospital readmission within 30 days of principal procedure (G9309)
Measure #357: Surgical Site Infection (SSI) -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older who had a surgical site infection (SSI)

NUMERATOR:
Number of patients with a surgical site infection

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Definitions:
Superficial Incisional SSI: Superficial incisional SSI is an infection that occurs within 30 days after the operation and infection involves only skin or subcutaneous tissue of the incision and at least one of the following:
- Purulent drainage, with or without laboratory confirmation, from the superficial incision
- Organisms isolated from an aseptically obtained culture of fluid or tissue from the superficial incision
- At least one of the following signs or symptoms of infection: pain or tenderness, localized swelling, redness, or heat AND superficial incision is deliberately opened by the surgeon, unless incision is culture-negative
- Diagnosis of superficial incisional SSI by the surgeon or attending physician

Deep Incisional SSI: Deep Incisional SSI is an infection that occurs within 30 days after the operation and the infection appears to be related to the operation and infection involved deep soft tissues (for example, fascial and muscle layers) of the incision and at least one of the following:
- Purulent drainage from the deep incision but not from the organ/space component of the surgical site
- A deep incision spontaneously dehisces or is deliberately opened by a surgeon when the patient has at least one of the following signs or symptoms: fever (> 38 C), localized pain, or tenderness, unless site is culture-negative
- An abscess or other evidence of infection involving the deep incision is found on direct examination, during re-operation, or by histopathologic or radiologic examination
- Diagnosis of a deep incision SSI by a surgeon or attending physician

Organ/Space SSI: Organ/Space SSI is an infection that occurs within 30 days after the operation and the infection appears to be related to the operation and the infection involves any part of the anatomy (for example, organs or spaces), other than the incision, which was opened or manipulated during an operation and at least one of the following:
- Purulent drainage from a drain that is placed through a stab wound into the organ/space.
- Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space
- An abscess or other evidence of infection involving the organ/space that is found on direct examination, during re-operation, or by histopathologic or radiologic examination
- Diagnosis of an organ/space SSI by a surgeon or attending physician
Numerator Options:

**Performance Met:** Surgical site infection (G9312)

**Performance Not Met:** No surgical site infection (G9311)
Measure #358: Patient-Centered Surgical Risk Assessment and Communication -- National Quality Strategy Domain: Person and Caregiver-Centered Experience and Outcomes

DESCRIPTION:
Percentage of patients who underwent a non-emergency surgery who had their personalized risks of postoperative complications assessed by their surgical team prior to surgery using a clinical data-based, patient-specific risk calculator and who received personal discussion of those risks with the surgeon

NUMERATOR:
Documentation of empirical, personalized risk assessment based on the patient’s risk factors with a validated risk calculator using multi-institutional clinical data, the specific risk calculator used, and communication of risk assessment from risk calculator with the patient and/or family

Numerator Instructions: The number of adult patients (age 18 and over) having had non-emergency surgery as defined by CPT codes during the reporting period who had their personalized risk of procedure-specific, 30-day postoperative complications assessed and documented by their surgeon prior to surgery using a clinical data-based, patient-specific risk calculator* and who had a documented personal discussion with their surgeon about these risks. The procedure-specific, patient-specific, data-based risk calculator should be based on a validated, risk-adjusted statistical model predicting 30-day postoperative complication (detailed below) for the procedure that the patient is to undergo. Risk calculations should be based on preoperative patient-specific clinical data, and should include the following groups of variables: patient demographic characteristics (e.g., age, gender); relevant lifestyle and clinical risk factors (e.g., smoking status, American Society of Anesthesiologists class, body mass index); patient comorbidities (e.g., diabetes; neurologic event/disease; disseminated cancer); and procedure type.

Postoperative complications should include 30-day risk-adjusted mortality, 30-day risk-adjusted overall morbidity (superficial surgical site infection, deep incisional surgical site infection, wound dehiscence, pneumonia, deep venous thrombosis; pneumonia; renal failure; urinary tract infection; prolonged ventilator dependence; bleeding complications; sepsis; and pulmonary embolism), serious complications (cardiac arrest; myocardial infarction, pneumonia; progressive renal insufficiency; acute renal failure; pulmonary embolism; deep venous thrombosis; return to the operating room deep incisional surgical site infection; organ space surgical site infection; systemic sepsis; unplanned intubation; urinary tract infection; and wound dehiscence), surgical site infection, and average length of stay.

Risk calculators based on multi-institutional, validated clinical data are acceptable for this measure. ACS NSQIP now offers a risk calculator which can be used for operations in many surgical subspecialty (ACS NSQIP Risk Calculator). Other risk calculators are available and acceptable for this measure, including but not limited to the risk calculator from the Society of Thoracic Surgeons.

Numerator Options:
Performance Met: Documentation of patient-specific risk assessment with a risk calculator based on multi-institutional clinical data, the specific risk calculator used, and communication of risk assessment from risk calculator with the patient or family (G9316)

OR

Performance Not Met: Documentation of patient-specific risk assessment with a risk calculator based on multi-institutional clinical data, the specific risk calculator used, and communication of risk assessment from risk calculator with the patient or family not completed (G9317)
GENERAL SURGERY MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD

RATIONALE:
In the American Medical Association’s (AMA) Physician's Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA’s published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).
A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**

The Joint Commission’s 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, The Physician’s Role in Medication Reconciliation, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.
MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION

RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #354 - ANASTOMOTIC LEAK INTERVENTION
MEASURE #355 - UNPLANNED REOPERATION WITHIN THE 30 DAY POSTOPERATIVE PERIOD
MEASURE #356 - UNPLANNED HOSPITAL READMISSION WITHIN 30 DAYS OF PRINCIPAL PROCEDURE
MEASURE #357 - SURGICAL SITE INFECTION (SSI)

RATIONALE:
This is an adverse surgical outcome, which is often a preventable cause of harm, thus it is important to measure and report. It is feasible to collect the data and produces reliable and valid results about the quality of care. It is useful and understandable to stakeholders. As highlighted earlier, this measure was developed in a collaborative effort by the American College of Surgeons and the American Board of Surgery. This measure addresses the National Quality Strategy Priorities, and was identified by an expert panel of physician providers to be a critical outcome for this procedure. This measure addresses a high-impact condition as it is one of the most common procedures performed in the U.S. The measure aligns well with the intended use. The care settings include Acute Care Facilities/Hospitals. Data are being collected in a clinical registry that has been in existence for over 5 years, with over 4000 current users. Thus, we are requesting consideration of this measure in the “Registry Reporting” option. The level of analysis...
is the clinician/individual. All populations are included, except children. The measure allows measurement across the person-centered episode of care out to 30 days after the procedure whether an inpatient, outpatient, or readmitted. The measure addresses disparities in care. The risk adjustment is performed with a parsimonious dataset and aims to allow efficient data collection resources and data reporting. Measures have been harmonized when possible.

**CLINICAL RECOMMENDATION STATEMENTS:**
A modified-Delphi methodology using an expert panel of surgeons who are Directors of the American Board of Surgery identified this to be a critical outcome for this surgical procedure (Surgeon Specific Registry Report on Project for ABS MOC Part IV. Unpublished study by the American College of Surgeons in conjunction with the American Board of Surgery, 2011).

**MEASURE #358 - PATIENT-CENTERED SURGICAL RISK ASSESSMENT AND COMMUNICATION RATIONALE:**
Preoperative risk assessment and communication between surgeons and patients is critical for effective informed consent and shared decision making in surgical care. Shared decision-making is considered an integral component of patient-centered care, especially for preference-sensitive issues. Evidence suggests that there is room for improving communication and the informed consent/shared decision-making processes between physicians and patients. Use of a risk calculator helps improve the quality of the informed consent/shared decision-making process by providing a personalized, customized, empirically-based estimate of a patient’s risk of post-operative complications. Moreover, evidence suggests that sharing numeric estimates of patient-specific risk may enhance patient trust in providers. Risk assessment and communication between surgeons and patients is critical to inform and shared decision-making processes in surgical care. Shared decision-making is considered an integral component of patient-centered care, particularly within accountable care organizations.

Evidence suggests that there is room for improving communication and informed/shared decision-making processes between physicians and patients.

Use of a risk calculator may help improve the quality of informed/shared decision-making by providing a personalized, empirically-based estimate of a patient’s risk of post-operative complications. Moreover, evidence suggests that sharing numeric estimates of patient-specific risk may enhance patient trust in providers.

**CLINICAL RECOMMENDATION STATEMENTS:**
Preoperative risk assessment and communication between surgeons and patients is critical for effective informed consent and shared decision making in surgical care. Shared decision-making is considered an integral component of patient-centered care, especially for preference-sensitive issues. Evidence suggests that there is room for improving communication and the informed consent/shared decision-making processes between physicians and patients. Use of a risk calculator helps improve the quality of the informed consent/shared decision-making process by providing a personalized, customized, empirically-based estimate of a patient’s risk of post-operative complications. Moreover, evidence suggests that sharing numeric estimates of patient-specific risk may enhance patient trust in providers.
### Table 12 - Risk Factor Definitions

<table>
<thead>
<tr>
<th>Class</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>ASA Class</td>
<td>Record the American Society of Anesthesiology (ASA) Physical Status Classification of the patient’s present physical condition on a scale from 1-5 as it appears on the anesthesia record. Most likely there will be a 2nd assessment of the ASA class prior to anesthesia induction. If this is available, report this most recent assessment. Some hospitals may note the ASA classification as the ‘Acuity Code’. The classifications are as follows: ASA 1 - Normal healthy patient ASA 2 - Patient with mild systemic disease ASA 3 - Patient with severe systemic disease ASA 4 - Patient with severe systemic disease that is a constant threat to life ASA 5 - Moribund patient who is not expected to survive without the operation None Assigned – For cases performed under local anesthesia that meet inclusion criteria but do not have an ASA class assigned, report as ‘none assigned’.</td>
</tr>
<tr>
<td>Emergent</td>
<td>Emergency Case: An emergency case is usually performed within a short interval of time (typically &lt;24 hours) between patient diagnosis or the onset of related preoperative symptomatology. It is implied that the patient’s well-being and outcome is potentially threatened by unnecessary delay and the patient’s status could deteriorate unpredictably or rapidly. The Principal Operative Procedure must be performed during the hospital admission for the diagnosis. Patients who are discharged after diagnosis and return for an elective, semi-elective, or urgent procedure related to the diagnosis would not be considered to have had an emergent case. The intent is to identify a patient population with heightened surgical risk due to an ongoing acute process that is currently having a negative impact on the patients’ health and for which continued, potentially rapid deterioration could occur. The increased risk might be partly due to the fact that the procedure is being performed with limited preoperative preparation time and the surgical team does not necessarily have the ability to optimize the patient’s status. The emergency case variable distinguishes between urgent/semi-elective/elective cases and true emergent surgeries. Urgent/semi-elective cases are not considered emergencies. Assign ‘YES’ if the surgeon and/or anesthesiologist report the case as emergent.</td>
</tr>
</tbody>
</table>
| Functional Status | Functional Health Status: This variable focuses on the patient’s abilities to perform activities of daily living (ADLs) in the 30 days prior to surgery. Activities of daily living are defined as ‘the activities usually performed in the course of a normal day in a person’s life’. ADLs include: bathing, feeding, dressing, toileting, and mobility. Report the best functional status demonstrated by the patient within the 30 days prior to surgery. Report the level of functional health status as defined by the following criteria.  
(1) Independent: The patient does not require assistance from another person for any activities of daily living. This includes a person who is able to function independently with prosthetics, equipment, or devices.  
(2) Partially dependent: The patient requires some assistance from another person for activities of daily living. This includes a person who utilizes prosthetics, equipment, or devices but still requires some assistance from another person for ADLs.  
(3) Totally dependent: The patient requires total assistance for all activities of daily living.  
(4) Unknown: If unable to ascertain the functional status prior to surgery, report as unknown. All patients with psychiatric illnesses should be evaluated for their ability to function with or without assistance with ADLs just as the non-psychiatric patient. For instance, if a patient with schizophrenia is able to care for him/herself without the assistance of nursing care, he/she is considered independent. If there is a change in the patients functional status, (i.e. improvement to worsening) within the 30 days prior to surgery, report the patient’s best functional status. |
## Wound class

**Wound Classification**: Indicate whether the primary surgeon has classified the wound as:

<table>
<thead>
<tr>
<th>Class</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>Multiple surgical procedures performed with different incision sites</strong></td>
<td>Assign wound classification based on the Principal Operative Procedure being reviewed.</td>
</tr>
<tr>
<td>Example: Principal Operative Procedure: Carotid Endarterectomy (clean) Other Procedure: I &amp; D of an infected right big toe (dirty/infected). The wound class assigned to this case would be clean.</td>
<td></td>
</tr>
<tr>
<td><strong>Multiple surgical procedures performed through one incision (same operative space)</strong></td>
<td>Assign wound classification based on the assessment of the overall operative space.</td>
</tr>
<tr>
<td>Example: Principal Operative Procedure: Lysis of adhesions (clean) Other Procedure: cholecystectomy with gross bile spillage (contaminated). The wound class would be contaminated, as the spillage is in the same operative space as the Principal Operative Procedure.</td>
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</table>

(1) **Clean**: An uninfected operative wound in which no inflammation is encountered and the respiratory, alimentary, genital, or uninfected urinary tract is not entered. In addition, clean wounds are primarily closed and, if necessary, drained with closed drainage. Operative incisional wounds that follow nonpenetrating (blunt) trauma should be included in this category if they meet the criteria. Examples of “Clean” cases include mastectomy, vascular bypass graft, exploratory laparotomy, hernia repair, thyroidectomy, total hip or knee replacement, total hip replacements for avascular necrosis, removal of ‘old’ hardware without evidence of infection.

**Note**: Placement of any drain at the time of surgery does not change the classification of the wound.

(2) **Clean/Contaminated**: An operative wound in which the respiratory, alimentary, genital or urinary tracts are entered under controlled conditions and without unusual contamination. Specifically, operations involving the biliary tract, appendix, vagina, and oropharynx are included in this category, provided no evidence of infection or major break in technique is encountered. Examples of “Clean/Contaminated” cases include cholecystectomy, colectomy, colostomy reversals, roux-en-Y, laryngectomy, small bowel resection, transurethral resection of the prostate, Whipple pancreaticoduodenectomy.

(3) **Contaminated**: Open, fresh, accidental wounds. In addition, operations with major breaks in sterile technique or gross spillage from the gastrointestinal tract, and incisions in which acute, non-purulent inflammation is encountered including necrotic tissue without evidence of purulent drainage (for example dry gangrene) are included in this category. Examples of “Contaminated” cases include appendectomy for inflamed appendicitis, bile spillage during cholecystectomy, or open cardiac massage. Open surgical wounds returning to the OR. Examples of major break in sterile technique include but are not limited to non-sterile equipment or debris found in the operative field.

(4) **Dirty/Infected**: Old traumatic wounds with retained devitalized tissue and those that involve existing clinical infection or perforated viscera. This definition suggests that the organisms causing postoperative infection were present in the operative field before the operation. Examples of “Dirty/Infected” cases include excision and drainage of abscess, perforated bowel, peritonitis, ruptured appendix.

Wound Class for Non-Skin Incision Surgeries (Natural Orifice): assign the wound classification based on which orifice was entered.

Example: appendectomy performed via the vagina would, at minimum, be a clean/contaminated wound class.
<table>
<thead>
<tr>
<th>Class</th>
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</table>
| **Sepsis** | Sepsis within 48 hours prior to surgery: Sepsis is a vast clinical entity that takes a variety of forms. The spectrum of disorders spans from relatively mild physiologic abnormalities to septic shock. The intent is to capture the patient population, whose physiology is compromised by an ongoing inflammatory or infectious process, thereby increasing the patient's risk of complications during or after surgery. Please report the most significant level using the criteria below.  
1. SIRS (Systemic Inflammatory Response Syndrome): SIRS is a widespread inflammatory response to a variety of severe clinical insults. This syndrome is clinically recognized by the presence of two or more of the following:  
   - Temp >38°C (100.4 °F) or < 36 °C (96.8°F)  
   - HR >90 bpm  
   - RR >20 breaths/min or PaCO2 <32 mmHg(<4.3 kPa)  
   - WBC >12,000 cell/mm³, <4000 cells/mm³, or >10% immature (band) forms  
   - Anion gap acidosis: this is defined by either:  
     - [Na + K] – [Cl + HCO₃] (or serum CO2). If this number is greater than 16, then an anion gap acidosis is present.  
     - Na – [Cl + HCO₃] (or serum CO2). If this number is greater than 12, then an anion gap acidosis is present.  
   *If anion gap lab values are performed at your facilities lab, ascertain which formula is utilized and follow guideline criteria.  
Sepsis: Sepsis is the systemic response to infection. Report this variable if the patient has clinical signs and symptoms of SIRS listed above and meets either A or B:  
One of the following:  
   - Positive blood culture  
   - Clinical documentation of purulence or positive culture from any site for which there is documentation noting the site as the acute cause of sepsis.  

OR  
Suspected pre-operative clinical condition of infection or bowel infarction, which leads to the surgical procedure. The findings during the Principal Operative Procedure must confirm this suspected diagnosis with one or more of the following:  
   - Confirmed infarcted bowel requiring resection  
   - Purulence in the operative site  
   - Enteric contents in the operative site, or  
   - Positive intra-operative cultures |

| Dyspnea | Dyspnea: Dyspnea may be symptomatic of numerous disorders that interfere with adequate ventilation or perfusion of the blood with oxygen and is defined as difficult, painful or labored breathing. The intent of this variable is to capture the usual or typical level of dyspnea (patient's baseline), within the 30-days prior to surgery. The intent is not to include patients solely because of an acute respiratory condition leading to intubation prior to surgery, but rather to reflect a chronic disease state. Characterize the patient's dyspnea status when they were in their usual state of health, prior to the onset of the acute illness, within the 30 days prior to surgery.  
(1) No dyspnea  
(2) Dyspnea upon moderate exertion (for example-is unable to climb one flight of stairs without shortness of breath)  
(3) Dyspnea at rest (for example: cannot complete a sentence without needing to take a breath)  
*Note: Acute pre-op dyspnea associated with the acute illness will be captured through other variables like pre-op vent dependence, emergency status or ASA Class. The previous requirement that the patient has to themselves state that they are symptomatic has been removed: not all patients are able to verbalize this symptomatology. |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Ascites</td>
<td>Ascites within 30 days prior to surgery: The presence of fluid accumulation in the peritoneal cavity noted on physical examination, abdominal ultrasound, or abdominal CT/MRI within 30 days prior to the operation. Documentation should state either active or a history of liver disease (for example, jaundice, encephalopathy, hepatomegaly, portal hypertension, liver failure, or spider telangiectasia). Minimal or trace ascites would not qualify; however; malignant ascites (exclusive of liver disease) due to extensive cancer would qualify.</td>
</tr>
</tbody>
</table>

| Surgical approach- Laparoscopic vs. Open | Operative Approach: Indicate the final surgical approach.  
(1) Open  
(2) Laparoscopic/Robotic  
(3) Laparoscopic/Robotic Hand Assisted  
(4) Laparoscopic/Robotic with Unplanned Conversion to Open  
(5) Unknown |
OPTIMIZING PATIENT EXPOSURE TO IONIZING RADIATION (OPEIR) MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN OPTIMIZING PATIENT EXPOSURE TO IONIZING RADIATION (OPEIR) MEASURES GROUP:

#359 Optimizing Patient Exposure to Ionizing Radiation: Utilization of a Standardized Nomenclature for Computed Tomography (CT) Imaging Description

#360 Optimizing Patient Exposure to Ionizing Radiation: Count of Potential High Dose Radiation Imaging Studies: Computed Tomography (CT) and Cardiac Nuclear Medicine Studies

#361 Optimizing Patient Exposure to Ionizing Radiation: Reporting to a Radiation Dose Index Registry

#362 Optimizing Patient Exposure to Ionizing Radiation: Computed Tomography (CT) Images Available for Patient Follow-up and Comparison Purposes

#363 Optimizing Patient Exposure to Ionizing Radiation: Search for Prior Computed Tomography (CT) Studies Through a Secure, Authorized, Media-Free, Shared Archive

#364 Optimizing Patient Exposure to Ionizing Radiation: Appropriateness: Follow-up CT Imaging for Incidentally Detected Pulmonary Nodules According to Recommended Guidelines

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G9238: I intend to report the Optimizing Patient Exposure to Ionizing Radiation (OPEIR) Measures Group

- Report the patient sample method:

  20 Patient Sample Method via registries: 20 unique procedures (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the OPEIR Measures Group are all patients regardless of age, that have a specific CT procedure performed:

  One of the following patient procedure codes: 70450, 70460, 70470, 70480, 70481, 70482, 70486, 70487, 70488, 70490, 70491, 70492, 70496, 70498, 71250, 71260, 71270, 71275, 72125, 72126, 72127, 72128, 72129, 72130, 72131, 72132, 72133, 72191, 72192, 72193, 72194, 73200, 73201, 73202, 73206, 73700, 73701, 73702, 73706, 74150, 74160, 74170, 74174, 74175, 74176, 74177, 74178, 74261, 74262, 74263, 75571, 75572, 75573, 75574, 75635, 76380, 76497, 77011, 77012, 77013, 77078, 78072, 78814, 78815, 78816, 0042t

- To satisfactorily report the OPEIR Measures Group requires reporting a numerator option on all applicable measures, for each patient (unique procedure) within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #364 only needs to be reported on patients 18 years and older when the patient has a procedure performed specific to one of the following CPT procedure codes: 71250, 71260, 71270, 71275, 78814, 78815, 78816 with a finding of an incidental pulmonary nodule.
• Instructions for qualifying numerator option reporting for each of the measures within the Optimizing Patient Exposure To Ionizing Radiation (OPEIR) Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

**Composite QDC G9236:** All quality actions for the applicable measures in the Optimizing Patient Exposure to Ionizing Radiation (OPEIR) Measures Group have been performed for this patient

• Measure Group Reporting Calculations:

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

• This measure group is intended for reporting by facilities that have archival abilities through a shared archival system.

• **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #359: Optimizing Patient Exposure to Ionizing Radiation: Utilization of a Standardized Nomenclature for Computed Tomography (CT) Imaging Description – National Quality Strategy

Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of computed tomography (CT) imaging reports for all patients, regardless of age, with the imaging study named according to a standardized nomenclature and the standardized nomenclature is used in institution’s computer systems

NUMERATOR:
CT imaging reports with the imaging study named according to a standardized nomenclature and the standardized nomenclature is used in institution’s computer systems

Numerator Instructions: Standardized nomenclature is used in institution’s computer systems, including but not limited:
- computerized physician ordering system
- charge master
- radiology information system
- electronic health record

NUMERATOR NOTE: Use of a standardized nomenclature is meant to enable reporting to a Dose Index Registry. There is no standard lexicon implemented across the board for naming CT exam procedures. To make like comparisons of sites reporting dose index data to a registry, it is necessary to use a specific CT exam name and standardize that across registry participants.

Numerator Options:
Performance Met: Imaging study named according to standardized nomenclature (G9318)

OR

Performance Not Met: Imaging study not named according to standardized nomenclature, reason not given (G9319)
Measure #360: Optimizing Patient Exposure to Ionizing Radiation: Count of Potential High Dose Radiation Imaging Studies: Computed Tomography (CT) and Cardiac Nuclear Medicine Studies -- National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of computed tomography (CT) and cardiac nuclear medicine (myocardial perfusion studies) imaging reports for all patients, regardless of age, that document a count of known previous CT (any type of CT) and cardiac nuclear medicine (myocardial perfusion) studies that the patient has received in the 12-month period prior to the current study.

NUMERATOR:
CT and cardiac nuclear medicine (myocardial perfusion studies) imaging reports that document a count of known previous CT (any type of CT) and cardiac nuclear medicine (myocardial perfusion) studies that the patient has received in the 12-month period prior to the current study.

**Numerator Instructions:**
Physicians will need to document in the final report all known previous CT and cardiac nuclear medicine (myocardial perfusion) studies the patient has received in the 12-month period prior to the current study as a count that includes studies from the Radiology Information System, patient-provided radiological history or other source.

**Numerator Options:**

- **Performance Met:**
  Count of previous CT (any type of CT) and cardiac nuclear medicine (myocardial perfusion) studies documented in the 12-month period prior to the current study (G9321)

- **Performance Not Met:**
  Count of previous CT and cardiac nuclear medicine (myocardial perfusion) studies not documented in the 12-month period prior to the current study, reason not given (G9322)
Measure #361: Optimizing Patient Exposure to Ionizing Radiation: Reporting to a Radiation Dose Index Registry -- National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of total computed tomography (CT) studies performed for all patients, regardless of age, that are reported to a radiation dose index registry AND that include at a minimum selected data elements

NUMERATOR:
CT studies performed that are reported to a radiation dose index registry that is capable of collecting at a minimum all of the following data elements:
- Manufacturer
- Study description
- Manufacturer’s model name
- Patient’s weight
- Patient’s size
- Patient’s sex
- Patient’s age
- Exposure time
- X-Ray tube current
- Kilovoltage (kV)
- Mean Volume Computed tomography dose index (CTDIvol)
- Dose-length product (DLP)

Detailed information regarding the patient demographic and scanner data elements included in the Digital Imaging and Communication in Medicine (DICOM) header and CT irradiation event data elements included in the DICOM Supplement 127: CT Radiation Dose Reporting (Dose Structured Report) can be found in the Dose Index Registry Data Dictionary available on the American College of Radiology (ACR) Web site: Dose Index Registry Data Dictionary

Numerator Options:
Performance Met: CT studies performed reported to a radiation dose index registry with all necessary data elements (G9327)
OR
Performance Not Met: CT studies performed not reported to a radiation dose index registry, reason not given (G9326)
OR
Performance Not Met: All necessary data elements not included, reason not given (G9324)
Measure #362: Optimizing Patient Exposure to Ionizing Radiation: Computed Tomography (CT) Images Available for Patient Follow-up and Comparison Purposes -- National Quality Strategy
Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of final reports for computed tomography (CT) studies performed for all patients, regardless of age, which document that Digital Imaging and Communications in Medicine (DICOM) format image data are available to non-affiliated external healthcare facilities or entities on a secure, media-free, reciprocally searchable basis with patient authorization for at least a 12-month period after the study.

NUMERATOR:
Final reports for CT studies which document that DICOM format image data are available to non-affiliated external healthcare facilities or entities on a secure, media-free, reciprocally searchable basis with patient authorization for at least a 12-month period after the study.

Definition:
Media-free - Radiology images that are transmitted electronically ONLY, not images recorded on film, CD, or other imaging transmittal form.

Numerator Options:

Performance Met:
Final report documented that DICOM format image data available to non-affiliated external healthcare facilities or entities on a secure, media-free, reciprocally searchable basis with patient authorization for at least a 12-month period after the study (G9340)

Performance Not Met:
DICOM format image data available to non-affiliated external healthcare facilities or entities on a secure, media-free, reciprocally searchable basis with patient authorization for at least a 12-month period after the study not documented in final report, reason not given (G9329)
Measure #363: Optimizing Patient Exposure to Ionizing Radiation: Search for Prior Computed Tomography (CT) Studies Through a Secure, Authorized, Media-Free, Shared Archive -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of final reports of computed tomography (CT) studies performed for all patients, regardless of age, which document that a search for Digital Imaging and Communications in Medicine (DICOM) format images was conducted for prior patient CT imaging studies completed at non-affiliated external healthcare facilities or entities within the past 12-months and are available through a secure, authorized, media-free, shared archive prior to an imaging study being performed.

NUMERATOR:
Final reports of CT studies, which document that a search for DICOM format images was conducted for prior patient CT imaging studies completed at non-affiliated external healthcare facilities or entities within the past 12-months and are available through a secure, authorized, media-free, shared archive prior to an imaging study being performed.

Definition:
Media-free - Radiology images that are transmitted electronically ONLY, not images recorded on film, CD, or other imaging transmittal form.

Numerator Options:
Performance Met: Search conducted for prior patient CT studies completed at non-affiliated external healthcare facilities or entities within the past 12-months and are available through a secure, authorized, media-free, shared archive prior to an imaging study being performed (G9341)

OR

System Performance Exclusion: Due to system reasons search not conducted for DICOM format images for prior patient CT imaging studies completed at non-affiliated external healthcare facilities or entities within the past 12 months that are available through a secure, authorized, media-free, shared archive (e.g., non-affiliated external healthcare facilities or entities does not have archival abilities through a shared archival system) (G9344)

OR

Performance Not Met: Search not conducted prior to an imaging study being performed for prior patient CT studies completed at non-affiliated external healthcare facilities or entities within the past 12-months and are available through a secure, authorized, media-free, shared archive, reason not given (G9342)
Measure #364: Optimizing Patient Exposure to Ionizing Radiation: Appropriateness: Follow-up CT Imaging for Incidentally Detected Pulmonary Nodules According to Recommended Guidelines -- National Quality Strategy Domain: Communication And Care Coordination

DESCRIPTION:
Percentage of final reports for computed tomography (CT) imaging studies of the thorax for patients aged 18 years and older with documented follow-up recommendations for incidentally detected pulmonary nodules (e.g., follow-up CT imaging studies needed or that no follow-up is needed) based at a minimum on nodule size AND patient risk factors

NUMERATOR:
Final reports with documented follow-up recommendations for incidentally detected pulmonary nodules (e.g., follow-up CT imaging studies needed or that no follow-up is needed) based at a minimum on nodule size AND patient risk factors

Definition:
Follow-up Recommendations - No follow-up recommended in the final CT report OR follow-up is recommended within a designated time frame in the final CT report. Recommendations noted in the final CT report should be in accordance with recommended guidelines.

Numerator Options:
Performance Met: Follow-up recommendations documented according to recommended guidelines for incidentally detected pulmonary nodules (e.g., follow-up CT imaging studies needed or that no follow-up is needed) based at a minimum on nodule size AND patient risk factors (G9345)

OR

Performance Not Met: Follow-up recommendations not documented according to recommended guidelines for incidentally detected pulmonary nodules, reason not given (G9347)
OPTIMIZING PATIENT EXPOSURE TO IONIZING RADIATION (OPEIR) MEASURES GROUP
RATIONALITY AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #359 - OPTIMIZING PATIENT EXPOSURE TO IONIZING RADIATION: UTILIZATION OF A
STANDARDIZED NOMENCLATURE FOR COMPUTED TOMOGRAPHY (CT) IMAGING DESCRIPTION
RATIONALE:
A uniform structure for capturing, indexing, and retrieving a variety of radiology information may facilitate the
structured reporting of radiology reports. This will also permit mining of data for participation in research projects,
registries, and quality improvement efforts. (RSNA/SIR, 2008)

CLINICAL RECOMMENDATION STATEMENTS:
The existence of a standardized lexicon for radiology would enable numerous improvements in the clinical practice of
radiology, starting with the ordering of imaging exams, through the use of information in the resulting radiology report. It
also makes possible more effective reuse of information for research and educational purposes. (RSNA, 2009)

MEASURE #360 - OPTIMIZING PATIENT EXPOSURE TO IONIZING RADIATION: COUNT OF POTENTIAL HIGH
DOSE RADIATION IMAGING STUDIES: COMPUTED TOMOGRAPHY (CT) AND CARDIAC NUCLEAR MEDICINE
STUDIES
RATIONALE:
Increased CT use has resulted in growing rates of repeat or multiple imaging. (Griffey RT, Sodickson A, 2009)
Physicians may lack important information that could inform their decisions in ordering imaging exams that use
ionizing radiation. Ordering physicians may not have access to patients' medical imaging or radiation dose history.
Due to insufficient information, physicians may unnecessarily order imaging procedures that have already been
carried out. (US Food and Drug Administration, 2010)

CLINICAL RECOMMENDATION STATEMENTS:
Radiologists, medical physicists, radiologic technologists, and all supervising physicians have a responsibility to
minimize radiation dose to individual patients, to staff, and to society as a whole, while maintaining the necessary
diagnostic image quality. (ACR, 2008)

MEASURE #361 - OPTIMIZING PATIENT EXPOSURE TO IONIZING RADIATION: REPORTING TO A
RADIATION DOSE INDEX REGISTRY
RATIONALE:
Clinical registries have become an important tool in efforts to improve quality of care. Registries provide a structured
mechanism to monitor clinical practice patterns, evaluate healthcare effectiveness and safety, and evaluate patient
outcomes. (Gliklich RE, Dreyer NA, 2007) (Bufalino VJ, Masoudi FA, Stranne SK, et al., 2011)
Establishing diagnostic reference levels is vital to helping clinicians determine optimal radiation dosage to produce
acceptable image quality. A data registry would allow facilities to compare their CT dose indices to regional and
national values enabling imaging providers and the imaging community to measure the effectiveness of dose
lowering efforts over time. (ACR, 2008)

CLINICAL RECOMMENDATION STATEMENTS:
The goal in medical imaging is to obtain image quality consistent with the medical imaging task. Diagnostic reference
levels are used to manage the radiation dose to the patient. The medical radiation exposure must be controlled,
avoiding unnecessary radiation that does not contribute to the clinical objective of the procedure. By the same token,
a dose significantly lower than the reference level may also be cause for concern, since it may indicate that adequate
image quality is not being achieved. The specific purpose of the reference level is to provide a benchmark for
comparison, not to define a maximum or minimum exposure limit. For CT, the diagnostic reference levels are based
on the volume CT dose index (CTDvol). (ACR, 2008)
MEASURE #362 - OPTIMIZING PATIENT EXPOSURE TO IONIZING RADIATION: COMPUTED TOMOGRAPHY (CT) IMAGES AVAILABLE FOR PATIENT FOLLOW-UP AND COMPARISON PURPOSES

RATIONALE:
The current radiology information systems in hospitals generally do not collect or report radiation exposures and the medical imaging devices that communicate with radiology information systems do not currently forward data on the radiation dose received by a patient from each such test. As a result, physicians are uncertain of their patients’ cumulative exposure and lifetime attributable risk (LAR), which is problematic when assessing, prioritizing and discussing the risks and benefits associated with their patients’ clinical needs. (Sodickson A, Baeyens PF, Andriole KP, et al., 2009)

It has been estimated that between $3 and $10 billion are wasted in the United States annually on unnecessary or duplicative imaging studies. Duplicative imaging procedures could be substantially reduced with improved access to existing imaging data. Additionally, universal access to existing imaging studies to retrieve relevant prior images could improve diagnostic specificity for radiologists and potentially further minimize recommendations for follow-up studies. (Monegain B, 2009)

CLINICAL RECOMMENDATION STATEMENTS:
Core functional requirements for an Internet-based system for sharing medical records:
   a) methods to ensure privacy and confidentiality of data;
   b) capability to move and store large data files (eg, images) with the same efficiency and reliability as possible with small data files (eg, text);
   c) construction of registries, which contain “knowledge” of all fragments of medical information (and their physical location) from all sources for a given patient;
   d) an ability to match records and accurately reconcile patient identities without a common patient identifier;
   e) a means to regulate access to data and audit the access;
   f) a method for moving blocks of data from one location to another; and
   g) a method to aggregate and consume the data at the point of care.

Optimal patient care requires that care providers and patients be able to create, manage and access comprehensive electronic health records (EHRs) efficiently and securely. The sharing of radiologic images has become a fundamental part of radiology services and is essential for delivering high-quality care. (Flanders AE, 2009)

MEASURE #363 - OPTIMIZING PATIENT EXPOSURE TO IONIZING RADIATION: SEARCH FOR PRIOR COMPUTED TOMOGRAPHY (CT) STUDIES THROUGH A SECURE, AUTHORIZED, MEDIA-FREE, SHARED ARCHIVE

RATIONALE:
The current radiology information systems in hospitals generally do not collect or report radiation exposures and the medical imaging devices that communicate with radiology information systems do not currently forward data on the radiation dose received by a patient from each such test. As a result, physicians are uncertain of their patients’ cumulative exposure and lifetime attributable risk (LAR), which is problematic when assessing, prioritizing and discussing the risks and benefits associated with their patients’ clinical needs. (Sodickson A, Baeyens PF, Andriole KP, et al., 2009)

It has been estimated that between $3 and $10 billion are wasted in the United States annually on unnecessary or duplicative imaging studies. Duplicative imaging procedures could be substantially reduced with improved access to existing imaging data. Additionally, universal access to existing imaging studies to retrieve relevant prior images could improve diagnostic specificity for radiologists and potentially further minimize recommendations for follow-up studies. (Monegain B, 2009)
CLINICAL RECOMMENDATION STATEMENTS:
Core functional requirements for an Internet-based system for sharing medical records:

a) methods to ensure privacy and confidentiality of data;
b) capability to move and store large data files (e.g., images) with the same efficiency and reliability as possible with small data files (e.g., text);
c) construction of registries, which contain “knowledge” of all fragments of medical information (and their physical location) from all sources for a given patient;
d) an ability to match records and accurately reconcile patient identities without a common patient identifier;
e) a means to regulate access to data and audit the access;
f) a method for moving blocks of data from one location to another; and
g) a method to aggregate and consume the data at the point of care.

Optimal patient care requires that care providers and patients be able to create, manage and access comprehensive electronic health records (EHRs) efficiently and securely. The sharing of radiologic images has become a fundamental part of radiology services and is essential for delivering high-quality care. (Flanders AE, 2009)

MEASURE #364 - OPTIMIZING PATIENT EXPOSURE TO IONIZING RADIATION: APPROPRIATENESS: FOLLOW-UP CT IMAGING FOR INCIDENTALLY DETECTED PULMONARY NODULES ACCORDING TO RECOMMENDED GUIDELINES

RATIONALE:
Pulmonary nodules are commonly encountered in both primary care and specialty settings. Pulmonary nodules require appropriate management to avoid missing early malignancies or conversely subjecting patients to unnecessary follow-up scans. (MacMahon et al., 2005) (ACCP, 2007)

At least 99% of all nodules 4mm or smaller are benign and because such small opacities are common on thin-section CT scans, follow-up CT is not recommended. (Swensen, 2002)

Additionally, there is no conclusive evidence that serial CT studies with early intervention for detected cancers can reduce disease-specific mortality, even in high-risk patients. Therefore, follow-up CT for every small indeterminate nodule is not recommended. (MacMahon et al., 2005)

CLINICAL RECOMMENDATION STATEMENTS:
Since the decision to perform follow-up studies relies on size, lesion characteristics (e.g., morphology), and growth rates (typically described as doubling time), an understanding of these features and their relationship to malignancy should dictate further evaluation. In addition, the patient's risk profile, including age and smoking history, needs to be integrated into the diagnostic algorithm.

Nodule size* ≤ 4 mm
Low-Risk Patient: no follow-up needed†
High-Risk Patient: follow-up at 12 months; if unchanged, no further follow-up‡

Nodule size >4-6 mm
Low-Risk Patient: follow-up at CT at 12 months; if unchanged, no further follow-up‡
High-Risk Patient: initial follow-up CT at 6-12 months, then at 18-24 months if no change‡

Nodule size >6-8 mm
Low-Risk Patient: initial follow-up CT at 6-12 months, then at 18-24 months if no change
High risk Patient: initial follow-up CT at 3-6 months, then at 9-12 and 24 months if no change

Nodule size >8 mm
Same for Low- or High-Risk Patient: follow-up CT at around 3, 9, and 24 months, dynamic contrast enhanced CT, PET, and/or biopsy
**Note** – Newly detected indeterminate nodule in persons 35 years of age or older.

**Low-Risk Patient** - minimal or absent history of smoking and of other known risk factors.

**High-Risk Patient** - history of smoking or of other known risk factors.

* Average of length and width
† The risk of malignancy in this category (<1%) is substantially less than that in a baseline CT scan of an asymptomatic smoker.
‡ Nonsolid (ground-glass) or partly solid nodules may require longer follow-up to exclude indolent adenocarcinoma.

These recommendations apply only to adult patients with nodules that are “incidental” in the sense that they are unrelated to known underlying disease. The following examples describe patients for whom the above guidelines would not apply:

- Patients known to have or suspected of having malignant disease. Patients with a cancer that may be a cause of lung metastases should be cared for according to the relevant protocol or specific clinical situation.
- Young patients. Primary lung cancer is rare in persons under 35 years of age (<1% of all cases), and the risks from radiation exposure are greater than in the older population. Therefore, unless there is a known primary cancer, multiple follow-up CT studies for small incidentally detected nodules should be avoided in young patients.
- Patients with unexplained fever. In certain clinical settings, such a patient presenting with neutropenic fever, the presence of a nodule may indicate active infection, and short-term imaging follow-up or intervention may be appropriate.

Previous CT scans, chest radiographs, and other pertinent imaging studies should be obtained for comparison whenever possible, as they may serve to demonstrate either stability or interval growth of the nodule in question. A low-dose, thin-section, unenhanced technique should be used, with limited longitudinal coverage, when follow-up of a lung nodule is the only indication for the CT examination. (MacMahon et al., 2005)
SINUSITIS MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN SINUSITIS MEASURES GROUP:
#130 Documentation of Current Medications in the Medical Record
#131 Pain Assessment and Follow-Up
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#331 Adult Sinusitis: Antibiotic Prescribed for Acute Sinusitis (Overuse)
#332 Adult Sinusitis: Appropriate Choice of Antibiotic: Amoxicillin With or Without Clavulanate Prescribed for Patients with Acute Bacterial Sinusitis (Appropriate Use)
#333 Adult Sinusitis: Computerized Tomography (CT) for Acute Sinusitis (Overuse)

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G9463: I intend to report the Sinusitis Measures Group

- Report the patient sample method:

  **20 Patient Sample Method via registries:** 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Sinusitis Measures Group are patients aged ≥ 18 years with a specific diagnosis of sinusitis and accompanied by a specific patient encounter:

  **One of the following diagnosis codes indicating acute sinusitis:**
  ICD-10-CM: J01.00, J01.01, J01.10, J01.11, J01.20, J01.21, J01.30, J01.31, J01.40, J01.41, J01.80, J01.90

  **Accompanied by:**

  **One of the following patient encounter codes:** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99281, 99282, 99283, 99284, 99285, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99342, 99344, 99345, 99347, 99348, 99349, 99350

- To satisfactorily report the Sinusitis Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Only patients with acute sinusitis are included in this measures group.

- When reporting measure #131, the documented follow-up plan must be related to the presence of pain, example: “Patient referred to pain management specialist for back pain” or “Return in two weeks for re-assessment of pain”.

- Measure #332 need only be reported if sinusitis caused by, or presumed to be caused by, bacterial infection (G9364) and antibiotic regimen prescribed (G9498) or equivalents.
Instructions for qualifying numerator option reporting for each of the measures within the Sinusitis Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

**Composite QDC G9464:** All quality actions for the applicable measures in the Sinusitis Measures Group have been performed for this patient.

This measures group contains one or more inverse measures. An inverse measure is a measure that represents a poor clinical quality action as meeting performance for the measure. For these measures, a lower performance rate indicates a higher quality of clinical care. Composite codes for measures groups that contain inverse measures are only utilized when the appropriate quality clinical care is given.

The composite code for this measures group may be reported when codes in the summary table below are applicable for reporting of each measure within the measures group.

**Table 13 - QDC Options**

<table>
<thead>
<tr>
<th>Measure</th>
<th>#130</th>
<th>#131</th>
<th>#226</th>
<th>#331*</th>
<th>#332</th>
<th>#333*</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDC options for acceptable use of the composite QDC</td>
<td>G8427 or G8730</td>
<td>G8731</td>
<td>4004F or 1036F</td>
<td>G9287</td>
<td>G9315</td>
<td>G9350</td>
</tr>
</tbody>
</table>

*Indicates an inverse measure

**Measure Group Reporting Calculations:**

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

When a lower rate indicates better performance, such as Measure #331, a 0% performance rate will be counted as satisfactorily reporting (100% performance rate would not be considered satisfactorily reporting).

**NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
 Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record – National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient's current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counter, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication's name, dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met:
Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient's current medications (G8427)

OR

Other Performance Exclusion:
Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR

Performance Not Met:
Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
^Measure #131 (NQF 0420): Pain Assessment and Follow-Up -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of visits for patients aged 18 years and older with documentation of a pain assessment using a standardized tool(s) on each visit AND documentation of a follow-up plan when pain is present

NUMERATOR:
Patient visits with a documented pain assessment using a standardized tool(s) AND documentation of a follow-up plan when pain is present

Definitions:
- **Pain Assessment** - Documentation of a clinical assessment for the presence or absence of pain using a standardized tool is required. A multi-dimensional clinical assessment of pain using a standardized tool may include characteristics of pain; such as: location, intensity, description, and onset/duration.
- **Standardized Tool** – An assessment tool that has been appropriately normed and validated for the population in which it is used. Examples of tools for pain assessment, include, but are not limited to: Brief Pain Inventory (BPI), Faces Pain Scale (FPS), McGill Pain Questionnaire (MPQ), Multidimensional Pain Inventory (MPI), Neuropathic Pain Scale (NPS), Numeric Rating Scale (NRS), Oswestry Disability Index (ODI), Roland Morris Disability Questionnaire (RMDQ), Verbal Descriptor Scale (VDS), Verbal Numeric Rating Scale (VNRS) and Visual Analog Scale (VAS).
- **Follow-Up Plan** – A documented outline of care for a positive pain assessment is required. This must include a planned follow-up appointment or a referral, a notification to other care providers as applicable OR indicate the initial treatment plan is still in effect. These plans may include pharmacologic and/or educational interventions.

Not Eligible – A patient is not eligible if one or more of the following reason(s) is documented:
- Severe mental and/or physical incapacity where the person is unable to express himself/herself in a manner understood by others. For example, cases where pain cannot be accurately assessed through use of nationally recognized standardized pain assessment tools
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status

**NUMERATOR NOTE:** The standardized tool used to assess the patient’s pain must be documented in the medical record (exception: A provider may use a fraction such as 5/10 for Numeric Rating Scale without documenting this actual tool name when assessing pain for intensity).

**Numerator Options:**
- **Performance Met:** Pain assessment documented as positive using a standardized tool AND a follow-up plan is documented (G8730)

  **OR**

  **Performance Met:** Pain assessment using a standardized tool is documented as negative, no follow-up plan required (G8731)

  **OR**

  **Other Performance Exclusion:** Pain assessment NOT documented as being performed, documentation the patient is not eligible for a pain assessment using a standardized tool (G8442)
OR

Other Performance Exclusion:

Pain assessment documented as positive, follow-up plan not documented, documentation the patient is not eligible (G8939)

OR

Performance Not Met:

No documentation of pain assessment, reason not given (G8732)

OR

Performance Not Met:

Pain assessment documented as positive using a standardized tool, follow-up plan not documented, reason not given (G8509)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user.

Definitions:
- Tobacco Use – Includes use of any type of tobacco.
- Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:

- Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F).

- OR

- Performance Met: Current tobacco non-user (1036F).

- OR

- Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (e.g., limited life expectancy, other medical reasons) (4004F with 1P).

- OR

- Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P).

**DESCRIPTION:**
Percentage of patients, aged 18 years and older, with a diagnosis of acute sinusitis who were prescribed an antibiotic within 10 days after onset of symptoms

**NUMERATOR:**
Patients prescribed any antibiotic within 10 days after onset of symptoms

**Numerator Instructions:**
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

**Numerator Options:**

- **Performance Met:** Antibiotic regimen prescribed within 10 days after onset of symptoms (G9286)

- **Other Performance Exclusion:** Antibiotic regimen prescribed within 10 days after onset of symptoms for documented medical reason (G9505)

- **Performance Not Met:** Antibiotic regimen not prescribed within 10 days after onset of symptoms (G9287)

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of acute bacterial sinusitis that were prescribed amoxicillin, with or without clavulanate, as a first line antibiotic at the time of diagnosis

NUMERATOR:
Patients who were prescribed amoxicillin, with or without clavulanate, as a first line antibiotic at the time of diagnosis

Definition:
Acute Bacterial Rhinosinusitis (ABRS):
Acute rhinosinusitis that is caused by, or is presumed to be caused by, bacterial infection; a clinician should diagnose ABRS when: (a) symptoms or signs of acute rhinosinusitis are present 10 days or more beyond the onset of upper respiratory symptoms, or (b) symptoms or signs of acute rhinosinusitis worsen within 10 days after an initial improvement (double worsening).

Numerator Options:
Performance Met:
Amoxicillin, with or without clavulanate, prescribed as a first line antibiotic at the time of diagnosis (G9315)

OR
Other Performance Exclusion:
Amoxicillin, with or without clavulanate, not prescribed as first line antibiotic at the time of diagnosis for documented reason (e.g., cystic fibrosis, immotile cilia disorders, ciliary dyskinesia, immune deficiency, prior history of sinus surgery within the past 12 months, and anatomic abnormalities, such as deviated nasal septum, resistant organisms, allergy to medication, recurrent sinusitis, chronic sinusitis, or other reasons) (G9313)

OR
Performance Not Met:
Amoxicillin, with or without clavulanate, not prescribed as first line antibiotic at the time of diagnosis, reason not given (G9314)
Measure #333: Adult Sinusitis: Computerized Tomography (CT) for Acute Sinusitis (Overuse) --
National Quality Strategy Domain: Efficiency and Cost Reduction

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of acute sinusitis who had a computerized
tomography (CT) scan of the paranasal sinuses ordered at the time of diagnosis or received within 28 days after date
of diagnosis

NUMERATOR:
Patients who had a computerized tomography (CT) scan of the paranasal sinuses ordered at the time of diagnosis or
received within 28 days after date of diagnosis

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or
control. The “Performance Not Met” numerator option for this measure is the representation of the better
clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer
to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible
patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure
at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Definition:
Acute Sinusitis/Rhinosinusitis – Up to 4 weeks of purulent nasal drainage (anterior, posterior, or both)
accompanied by nasal obstruction, facial pain-pressure-fullness, or both:
Purulent nasal discharge is cloudy or colored, in contrast to the clear secretions that typically accompany
viral upper respiratory infection, and may be reported by the patient or observed on physical examination
Nasal obstruction may be reported by the patient as nasal obstruction, congestion, blockage, or stuffiness,
or may be diagnosed by physical examination.
Facial pain-pressure-fullness may involve the anterior face, periorbital region, or manifest with headache
that is localized or diffuse

Numerator Options:
Performance Met: CT scan of the paranasal sinuses ordered at the time of
diagnosis or received within 28 days after date of
diagnosis (G9349)

OR

Other Performance Exclusion: CT scan of the paranasal sinuses ordered at the time of
diagnosis for documented reasons (e.g., persons with
sinusitis symptoms lasting at least 7 to 10 days,
antibiotic resistance, immunocompromised, recurrent
sinusitis, acute frontal sinusitis, acute sphenoid
sinusitis, periorbital cellulitis, or other medical) (G9348)

OR

Performance Not Met: CT scan of the paranasal sinuses not ordered at the
time of diagnosis or received within 28 days after date of
diagnosis (G9350)
SINUITIS MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD

RATIONALE:
In the American Medical Association’s (AMA) Physician's Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), "different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).
A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**

The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: [Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide](#)).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, *The Physician’s Role in Medication Reconciliation*, identified the best practice medication reconciliation team as one that is multidisciplinary and--in all settings of care--will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.
MEASURE #131 – PAIN ASSESSMENT AND FOLLOW-UP
RATIONALE:
Chronic pain is defined as pain without biological values that has persisted beyond the normal time and despite the usual customary efforts to diagnose and treat the original condition and injury. If a patient’s pain has persisted for six weeks (or longer than the anticipated healing time), a thorough evaluation for the course of the chronic pain is warranted (ICSI, 2013).

Chronic pain affects approximately 100 million adults in the USA. (Gaskin, 2012). It is clear the enormous pain-related costs represent both a great challenge and an opportunity in terms of improving the quality and cost-effectiveness of care (Mayday Fund, 2009).

Research also shows gender differences in the experience and treatment of pain. Most chronic pain conditions are more prevalent among women; however, women’s pain complaints tend to be poorly assessed and undertreated (Green, 2003; Chronic Pain Research Alliance 2011, Weimer 2013). Although women may have higher baseline pain, differences in pain levels may not persist at one month (Peterson, 2012).

A growing body of research reveals even more extensive gaps in pain assessment and treatment among racial and ethnic populations, with minorities receiving less care for pain than non-Hispanic whites (Burgess, 2013; Green, 2003; Green, 2007; Green et al., 2011; Todd et al., 2004; Todd et al., 2007). Differences in pain care occur across all types of pain (e.g., acute, chronic, cancer-related) and medical settings (e.g., emergency departments and primary care) (Green, 2003; Green, 2007; Todd et al., 2007). Even when income, insurance status and access to health care are accounted for, minorities are still less likely than whites to receive necessary pain treatments (Green, 2003; Green, 2007; Paulson et al., 2007). Black race is associated with neighborhood socio-economic status (SES) and race plays a role in pain outcomes beyond SES (Green, 2012).

“When assessing and treating pain, practitioner sex, race, age, and duration of experience were all significantly associated with pain management decisions. These findings suggest that pain assessment and treatment decisions may be impacted by the health care providers’ demographic characteristics, effects which may contribute to pain management disparities.” (Bartley et al., 2015).

“A standard minimum pain assessment for back-pain patients should integrate pain intensity (e.g. VAS/NRS), pain affect (e.g. five-point VRS) and pain-related disability. Depending on more detailed research questions, more sophisticated questionnaires on pain affect (e.g. MPQ), coping strategies and fear-avoidance behavior should be used. This allows for a more comprehensive assessment of pain and factors influencing pain perception.” (Haefeli M., Elfering, A., 2005).

The American Pain Foundation (2009) identified pertinent facts related to the impact of pain as follows:

- Approximately 76.5 million Americans suffer from pain.
- Pain affects more Americans than diabetes, heart disease and cancer combined. It is the number one reason people seek medical care.
- Uncontrolled pain is a leading cause of disability and diminishes quality of life for patients, survivors, and their loved ones. It interferes with all aspects of daily activity, including sleep, work, social and sexual relations.
- Under-treated pain drives up costs – estimated at $100 billion annually in healthcare expenses, lost income, and lost productivity—extending length of hospital stays, as well as increasing emergency room trips and unplanned clinic visits.
- Medically underserved populations endure a disproportionate pain burden in all health care settings.
- Disparities exist among racial and ethnic minorities in pain perception, assessment, and treatment for all types of pain, whether chronic or acute.
The Institute Of Medicine’s (IOM) Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research (2011) report suggests that chronic pain rates will continue to increase as a result of:

- More Americans will experience a disease in which chronic pain is associated (diabetes, cardiovascular disease, etc.).
- Increase in obesity which is associated with chronic conditions that have painful symptoms.
- Progress in lifesaving techniques for catastrophic injuries for people who would have previously died leads to a group of young people at risk for lifelong chronic pain.
- Surgical patients are at risk for acute and chronic pain.
- The public has a better understanding of chronic pain syndromes and new treatments and therefore may seek help when they may not have sought help in the past.

There are no current estimates of the total cost of poorly controlled pain in today’s dollars. Viewed from the perspective of health care inflation at levels of more than 40% during the past decade (President’s Council of Economic Advisors, 2009), the cost of health care due to pain is estimated to be between $261 to $300 billion. The value of lost productivity based on estimates of days of work missed is $11.6 to 12.7 billion, hours of work lost is 95.2 to $96.5 billion and lower wages is $190.6 to $226.3 billion.

**CLINICAL RECOMMENDATION STATEMENTS:**

Chronic pain assessment should include determining the mechanisms of pain through documentation of pain location, intensity, quality and onset/duration; functional ability and goals; and psychological/social factors such as depression or substance abuse.

A patient-centered, multifactorial, comprehensive care plan is necessary; one that includes biopsychosocial factors, as well as spiritual and cultural issues. It is important to have an interdisciplinary team approach which includes the primary care physician and specialty areas of psychology and physical rehabilitation.

The Institute for Clinical Systems Improvement (ICSI, 2013) Assessment and Management of Chronic Pain Guideline, Sixth Edition is based on a very broad foundation of evidence addressing a wide range of clinical conditions. It was chosen because it addresses the key factors of the comprehensive plan of care which incorporates self-management and active input from the patient and primary care clinician, pain assessment outcomes and referral to a pain medicine specialist or pain medicine specialty clinic.

The Institute for Clinical Systems Improvement (ICSI, 2012) Adult Acute and Sub-acute Low Back Pain guideline provides guidelines for physical therapists for low back pain assessment criteria, reducing or eliminating imaging for diagnosis of non-specific low back pain in patients 18 years and older, first-line treatment which emphasizes patient education and a core treatment plan that includes encouraging activity, use of heat, no imaging, cautious and responsible use of opioids, anti-inflammatory and analgesic over-the-counter medications and return to work assessment, advising patients with acute or subacute low back pain to stay active and the use of opioids.

Low Back Pain: Clinical Guidelines Linked to the International Classification of Functioning, Disability, and Health from the Orthopedic Section of the American Physical Therapy Association (Delitto, 2012) provides evidence to classify musculoskeletal conditions, specify interventions and identify appropriate outcome measures.

“Initial physical therapy management was not associated with increased health care costs or utilization of specific services following a new primary care LBP consultation” (Fritz, 2013, p. 1).

Anchored numerical scales are recommended for tracking routine progress, particularly pain interference with important activities. Regional or condition functional outcome scales should be routinely used at baseline and periodic follow-ups. More frequent follow-up is recommended with higher frequency care. (Washington State Department of Labor and Industries, 2014)
MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSION INTERVENTION

RATIONALE:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #331 - ADULT SINUSITIS: ANTIBIOTIC PRESCRIBED FOR ACUTE SINUSITIS (OVERUSE)

RATIONALE:
Antibiotic treatment for sinusitis is indicated for some patients, but overtreatment of acute sinusitis with antibiotics is common and often not indicated. Further, treatment with antibiotics may increase patient harm and can lead to antibiotic resistance.

A Cochrane systematic review was undertaken to quantify the effectiveness of antibiotic therapy for patients diagnosed with acute sinusitis and treated in ambulatory settings. The authors concluded that antibiotics have a small benefit for improving clinical outcomes in patients with uncomplicated acute sinusitis and symptoms lasting more than seven days in a primary care setting. However, 80% of patients treated with a placebo also improved within two weeks.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:
Clinicians should distinguish presumed acute bacterial rhinosinusitis (ABRS) from acute rhinosinusitis caused by viral upper respiratory infections and non-infectious conditions. A clinician should diagnose ABRS when (a) symptoms or signs of acute rhinosinusitis (purulent nasal drainage accompanies by nasal obstruction, facial pain-pressure-fullness, or both) persist without evidence of improvement for at least 10 days beyond the onset of upper respiratory symptoms, or (b) symptoms or signs of acute rhinosinusitis worsen within 10 days after an initial improvement (double worsening).

**Strong recommendation based on diagnostic studies with minor limitations and a preponderance of benefit over harm.**

The purpose of this statement is to emphasize the importance of differentiating acute bacterial rhinosinusitis (ABRS) from acute rhinosinusitis (ARS) caused by viral upper respiratory infections to prevent unnecessary treatment with antibiotics. Distinguishing presumed bacterial vs. viral infection is important because antibiotic therapy is inappropriate for the latter.

A quality improvement opportunity addressed by this guideline key action statement is the avoidance of inappropriate use of antibiotics for presumed viral infections. More than one in five antibiotics prescribed in adults are for sinusitis, making it the fifth most common diagnosis responsible for antibiotic therapy.

**MEASURE #332 - APPROPRIATE CHOICE OF ANTIBIOTIC: AMoxicillin WITH OR WITHOUT CLAVULANATE PRESCRIBED FOR PATIENTS WITH ACUTE BACTERIAL SINUSITIS (APPROPRIATE USE)**

**RATIONALE:**
The rationale for antibiotic therapy of ABRS is to eradicate bacterial infection from the sinuses, hasten resolution of symptoms, and enhance disease-specific quality of life. Antibiotic therapy should be efficacious, cost-effective, and result in minimal side effects.

The justification for amoxicillin as first-line therapy for most patients with ABRS relates to its safety, efficacy, low cost, and narrow microbiologic spectrum. Consideration to prescribing amoxicillin-clavulanate for adults with ABRS is given to those at a high risk of being infected by an organism resistant to amoxicillin. Factors that would prompt clinicians to consider prescribing amoxicillin-clavulanate instead of amoxicillin include:

- Situations in which bacterial resistance is likely (e.g. antibiotic use in the past month; close contact with treated individuals, health care providers, or a health care environment; failure of prior antibiotic therapy; breakthrough infection despite prophylaxis; close contact with a child in a daycare facility; smoker or smoker in the family; high prevalence of resistant bacteria in community)
- Presence of moderate to severe infection (e.g. moderate to severe symptoms of ABRS; protracted symptoms of ABRS; frontal or sphenoidal sinusitis, history of recurrent ABRS)
- Presence of comorbidity or extremes of life (e.g. comorbid conditions including diabetes; chronic cardiac, hepatic, or renal disease; immunocompromised patient; age greater than 65 years)

The use of high-dose amoxicillin with clavulanate is recommended for adults with ABRS who are at a high risk of being infected with an amoxicillin-resistant organism. High-dose amoxicillin is preferred over standard-dose amoxicillin primarily to cover penicillin non susceptible (PNS) S. pneumoniae. This risk exists in those from geographic regions with high endemic rates (>10%) of invasive PNS S. pneumoniae, those with severe infection (e.g., evidence of systemic toxicity with fever of 39°C (102°F) or higher, and threat of suppurative complications), age >65 years, recent hospitalization, antibiotic use within the past month, or those who are immunocompromised.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence recommendation statements are extracted from the referenced clinical guidelines:
If a decision is made to treat ABRS with an antibiotic agent, the clinician should prescribe amoxicillin with or without clavulanate as first-line therapy for most adults.

*Recommendation based on randomized controlled trials with heterogeneity and non-inferiority design with a preponderance of benefit over harm.*

The purpose of this statement is to promote prescribing of antibiotics with known efficacy and safety for ABRS and to reduce prescribing of antibiotics with potentially inferior efficacy because of more limited coverage of the usual pathogens that cause ABRS in adults. A secondary goal is to promote cost-effective antibiotic therapy for ABRS. A quality improvement opportunity addressed by this guideline key action statement is discouraging initial prescribing of antibiotics other than amoxicillin, with or without clavulanate, that may have low efficacy or have comparable efficacy but more adverse events.

IDSA Clinical Practice Guideline for Acute Bacterial Rhinosinusitis in Children and Adults (2012)

Amoxicillin-clavulanate rather than amoxicillin alone is recommended as empiric antimicrobial therapy for ABRS in adults (weak, low).

Evidence for at least 1 critical outcome from observational studies, from RCTs with serious flaws or indirect evidence.

**MEASURE #333 - ADULT SINUSITIS: COMPUTERIZED TOMOGRAPHY FOR ACUTE SINUSITIS (OVERUSE)**

**RATIONALE:**

Most cases of uncomplicated acute and sub-acute sinusitis are diagnosed clinically and should not require any imaging procedure. Sinus CT scanning is of limited value in the routine evaluation of sinusitis due to the high prevalence of abnormal imaging findings. Forty percent of asymptomatic patients and 87 percent of patients with community-acquired colds have sinus abnormalities on sinus CT. Additionally, sinus CT imaging has a high sensitivity but a low specificity for demonstrating acute sinusitis. Furthermore, CT imaging is not recommended for the diagnosis of uncomplicated sinusitis because it is not cost-effective and exposes patients to unnecessary radiation.

Sinusitis cannot be diagnosed on the basis of imaging findings alone. Findings on CT scans should be interpreted in conjunction with clinical and endoscopic findings. Up to 40% of asymptomatic adults have abnormalities on sinus CT scans, as do more than 80% of those with minor upper respiratory tract infections.

**CLINICAL RECOMMENDATION STATEMENTS:**

The following evidence recommendation statements are extracted from the referenced clinical guidelines:

**AAO-HNS Sinusitis Guideline (2015)**

Clinicians should not obtain radiographic imaging for patients who meet diagnostic criteria for acute rhinosinusitis, unless a complication or alternative diagnosis is suspected.

*Recommendation (against imaging) based on diagnostic studies with minor limitations and a preponderance of benefit over harm for not obtaining imaging.*

The purpose of this statement is to emphasize that clinicians should not obtain radiographic imaging for patients presenting with uncomplicated acute rhinosinusitis (ARS) to distinguish ABRS from VRS, unless a complication or alternative diagnosis is suspected.

Radiographic imaging of the paranasal sinuses is unnecessary for diagnosis in patients who already meet clinical diagnostic criteria (Table 4) for ABRS. Sinus involvement is common in documented viral URIs, making it impossible to distinguish ABRS from VRS based solely on imaging studies. Moreover, clinical criteria may have a comparable...
diagnostic accuracy to sinus radiography, and radiography is not cost-effective regardless of baseline sinusitis prevalence.

When a complication of ABRS or an alternative diagnosis is suspected, imaging studies may be obtained. Complications of ABRS include orbital, intracranial, or soft tissue involvement. Alternative diagnoses include malignancy and other non-infectious causes of facial pain. Radiographic imaging may also be obtained when the patient has modifying factors or comorbidities that predispose to complications, including diabetes, immune compromised state, or a past history of facial trauma or surgery.

A quality improvement opportunity addressed by this guideline key action statement is avoiding costly diagnostic tests that do not improve diagnostic accuracy yet expose the patient to unnecessary radiation.

American College of Radiology ACR Appropriateness Criteria® For Sinonasal Disease (ACR, 2012)
Clinical Condition: Sinonasal Disease
Variant 1: Acute (<4 weeks) or subacute (4-12 weeks) uncomplicated rhinosinusitis.
Radiologic Procedure: CT paranasal sinuses without contrast
Rating: 5
Comments: Most episodes are managed without imaging, as this is primarily a clinical diagnosis. Imaging may be indicated if acute frontal sphenoid sinusitis is suspected, or if there are atypical symptoms, or if the diagnosis is uncertain.
RRL*: 0.1-1 mSv
Radiologic Procedure: MRI head and paranasal sinuses without contrast
Rating: 4
Comments: May be useful as part of a general workup for headache.
RRL*: 0 mSv
Radiologic Procedure: MRI head and paranasal sinuses without and with contrast
Rating: 2
Comments: May be useful as part of a general workup for headache.
RRL*: 0 mSv
Radiologic Procedure: CT paranasal sinuses with contrast
Rating: 2
RRL*: 0.1-1 mSv
Radiologic Procedure: CT paranasal sinuses without and with contrast
Rating: 1
RRL*: 1-10 mSv
Radiologic Procedure: X-ray paranasal sinuses
Rating: 1
RRL*: <0.1 mSv
Rating Scale: 1,2,3 Usually not appropriate; 4,5,6 May be appropriate; 7,8,9 Usually appropriate *Relative Radiation Level
ACUTE OTITIS EXTERNA (AOE) MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN ACUTE OTITIS EXTERNA (AOE) MEASURES GROUP:

#91 Acute Otitis Externa (AOE): Topical Therapy
#93 Acute Otitis Externa (AOE): Systemic Antimicrobial Therapy – Avoidance of Inappropriate Use
#130 Documentation of Current Medications in the Medical Record
#131 Pain Assessment and Follow-Up
#154 Falls: Risk Assessment
#155 Falls: Plan of Care
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#317 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

  G9465: I intend to report the Acute Otitis Externa (AOE) Measures Group

- Report the patient sample method:

  20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the AOE Measures Group are patients aged ≥ 2 years with a specific diagnosis of AOE and accompanied by a specific patient encounter:

  One of the following diagnosis codes indicating AOE:
  ICD-10-CM: H60.00, H60.01, H60.02, H60.03, H60.10, H60.11, H60.12, H60.13, H60.311, H60.312, H60.313, H60.319, H60.321, H60.322, H60.323, H60.329, H60.331, H60.332, H60.333, H60.33, H60.339, H60.391, H60.392, H60.393, H60.399, H60.501, H60.502, H60.503, H60.509, H60.511, H60.512, H60.513, H60.519, H60.521, H60.522, H60.523, H60.529, H60.531, H60.532, H60.533, H60.539, H60.541, H60.542, H60.543, H60.549, H60.551, H60.552, H60.553, H60.559, H60.591, H60.592, H60.593, H60.599, H61.90, H61.91, H61.92, H61.93, H62.40, H62.41, H62.42, H62.43, H62.8X1, H62.8X2, H62.8X3, H62.8X9

  Accompanied by:

  One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99281, 99282, 99283, 99284, 99285, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99312, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

  To satisfactorily report the AOE Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

  Measures #130, #131, #226, and #317 need only be reported on patients age 18 years and older.

  When reporting measure #131, the documented follow-up plan must be related to the presence of pain, example: “Patient referred to pain management specialist for back pain” or “Return in two weeks for reassessment of pain”.

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• Measures #154 and #155 need only be reported on patients 65 years and older.

• Measure #155 need only be reported when patients are identified in Measure #154 as having a falls risk assessment which indicates the patient has documentation of two or more falls in the past year or any fall with injury in the past year (1100F).

• Measure #317 need only be reported with one of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99304, 99305, 99306, 99307, 99308, 99309, 99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350.

• Measure #317 does not need to be reported (is not applicable) if the patient has an active diagnosis of hypertension.

• When reporting measure #317, eligible professionals must perform the blood pressure screening at the time of a qualifying visit and may not obtain measurements from external sources.

• Instructions for qualifying numerator option reporting for each of the measures within the AOE Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

  Composite QDC G9466: All quality actions for the applicable measures in the AOE Measures Group have been performed for this patient

• Measure Group Reporting Calculations:

  Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

  Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

  If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

• NOTE: The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #91 (NQF 0653): Acute Otitis Externa (AOE): Topical Therapy -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 2 years and older with a diagnosis of AOE who were prescribed topical preparations

NUMERATOR:
Patients who were prescribed topical preparations

Definition:
Prescribed – May include prescription given to the patient for topical preparations at one or more visits during the episode of AOE OR patient already receiving topical preparations as documented in the current medication list.

Numerator Options:
Performance Met: Topical preparations (including OTC) prescribed for acute otitis externa (4130F)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for not prescribing topical preparations (including OTC) for acute otitis externa (eg, coexisting acute otitis media, tympanic membrane perforation) (4130F with 1P)

OR

Patient Performance Exclusion: Documentation of patient reason(s) for not prescribing topical preparations (including OTC) for acute otitis externa (4130F with 2P)

OR

Performance Not Met: Topical preparations (including OTC) for acute otitis externa (AOE) not prescribed, reason not otherwise specified (4130F with 8P)

DESCRIPTION:
Percentage of patients aged 2 years and older with a diagnosis of AOE who were not prescribed systemic antimicrobial therapy

NUMERATOR:
Patients who were not prescribed systemic antimicrobial therapy

Numerator Instructions: For performance, the measure will be calculated as the number of patients for whom systemic antimicrobial therapy was not prescribed over the number of patients in the denominator (patients aged 2 years and older with acute otitis externa). A higher score indicates appropriate treatment of patients with AOE (e.g., the proportion for whom systemic antimicrobials were not prescribed).

Numerator Options:

Performance Met: Systemic antimicrobial therapy not prescribed (4132F)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for prescribing systemic antimicrobial therapy (eg, coexisting diabetes, immune deficiency) (4131F with 1P)

OR

Performance Not Met: Systemic antimicrobial therapy prescribed (4131F)
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record --
National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications’ name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.

Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).

Not Eligible - A patient is not eligible if the following reason is documented:
• Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met:
Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

OR
Other Performance Exclusion:
Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR
Performance Not Met:
Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #131 (NQF 0420): Pain Assessment and Follow-Up -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of visits for patients aged 18 years and older with documentation of a pain assessment using a standardized tool(s) on each visit AND documentation of a follow-up plan when pain is present.

NUMERATOR:
Patient visits with a documented pain assessment using a standardized tool(s) AND documentation of a follow-up plan when pain is present.

Definitions:
- **Pain Assessment** - Documentation of a clinical assessment for the presence or absence of pain using a standardized tool is required. A multi-dimensional clinical assessment of pain using a standardized tool may include characteristics of pain; such as: location, intensity, description, and onset/duration.
- **Standardized Tool** – An assessment tool that has been appropriately normed and validated for the population in which it is used. Examples of tools for pain assessment, include, but are not limited to: Brief Pain Inventory (BPI), Faces Pain Scale (FPS), McGill Pain Questionnaire (MPQ), Multidimensional Pain Inventory (MPI), Neuropathic Pain Scale (NPS), Numeric Rating Scale (NRS), Oswestry Disability Index (ODI), Roland Morris Disability Questionnaire (RMDQ), Verbal Descriptor Scale (VDS), Verbal Numeric Rating Scale (VNRS) and Visual Analog Scale (VAS).
- **Follow-Up Plan** – A documented outline of care for a positive pain assessment is required. This must include a planned follow-up appointment or a referral, a notification to other care providers as applicable OR indicate the initial treatment plan is still in effect. These plans may include pharmacologic and/or educational interventions.
- **Not Eligible** – A patient is not eligible if one or more of the following reason(s) is documented:
  - Severe mental and/or physical incapacity where the person is unable to express himself/herself in a manner understood by others. For example, cases where pain cannot be accurately assessed through use of nationally recognized standardized pain assessment tools
  - Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status

**NUMERATOR NOTE:** The standardized tool used to assess the patient’s pain must be documented in the medical record (exception: A provider may use a fraction such as 5/10 for Numeric Rating Scale without documenting this actual tool name when assessing pain for intensity).

**Numerator Options:**
- **Performance Met:**
  - Pain assessment documented as positive using a standardized tool AND a follow-up plan is documented (G8730)
  - Pain assessment using a standardized tool is documented as negative, no follow-up plan required (G8731)
  - Pain assessment NOT documented as being performed, documentation the patient is not eligible for a pain assessment using a standardized tool (G8442)
OR
Other Performance Exclusion:

Pain assessment documented as positive, follow-up plan not documented, documentation the patient is not eligible (G8939)

OR
Performance Not Met:

No documentation of pain assessment, reason not given (G8732)

OR
Performance Not Met:

Pain assessment documented as positive using a standardized tool, follow-up plan not documented, reason not given (G8509)

**DESCRIPTION:**
Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months

**NUMERATOR:**
Patients who had a risk assessment for falls completed within 12 months

**Numerator Instructions:** All components do not need to be completed during one patient visit, but should be documented in the medical record as having been performed within the past 12 months.

**Definitions:**
- **Fall** – A sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of sudden onset of paralysis, epileptic seizure, or overwhelming external force.
- **Risk Assessment** – Comprised of balance/gait AND one or more of the following: postural blood pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls within the past 12 months.
- **Balance/gait Assessment** – Medical record must include documentation of observed transfer and walking or use of a standardized scale (e.g., Get Up & Go, Berg, Tinetti) or documentation of referral for assessment of balance/gait.
- **Postural blood pressure** – Documentation of blood pressure values in supine and then standing positions.
- **Vision Assessment** – Medical record must include documentation that patient is functioning well with vision or not functioning well with vision based on discussion with the patient or use of a standardized scale or assessment tool (e.g., Snellen) or documentation of referral for assessment of vision.
- **Home fall hazards Assessment** – Medical record must include documentation of counseling on home falls hazards or documentation of inquiry of home fall hazards or referral for evaluation of home fall hazards.
- **Medications Assessment** – Medical record must include documentation of whether the patient's current medications may or may not contribute to falls.

**NUMERATOR NOTE:** History of falls is defined as 2 or more falls in the past year or any fall with injury in the past year. Documentation of patient reported history of falls is sufficient.

**Numerator Options:**

**Performance Met:**
- Falls risk assessment documented (3288F)
- Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year (1100F)

**Medical Performance Exclusion:**
- Documentation of medical reason(s) for not completing a risk assessment for falls (i.e., patient is not ambulatory, bed ridden, immobile, confined to chair, wheelchair bound, dependent on helper pushing wheelchair, independent in wheelchair or minimal help in wheelchair) (3288F with 1P)
Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year (1100F)

OR

Other Performance Exclusion:

Patient screened for future fall risk; documentation of no falls in the past year or only one fall without injury in the past year (1101F)

OR

Other Performance Exclusion:

No documentation of falls status (1101F with 8P)

OR

Performance Not Met:

Falls risk assessment not completed, reason not otherwise specified (3288F with 8P)

AND

Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year (1100F)
**Measure #155 (NQF: 0101): Falls: Plan of Care -- National Quality Strategy Domain:**  
Communication and Care Coordination

**DESCRIPTION:**  
Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months

**NUMERATOR:**  
Patients with a plan of care for falls documented within 12 months

**Numerator Instructions:** All components do not need to be completed during one patient visit, but should be documented in the medical record as having been performed within the past 12 months.

**Definitions:**

**Plan of Care** – Must include: 1) consideration of vitamin D supplementation AND 2) balance, strength, and gait training.

**Consideration of Vitamin D Supplementation** – Documentation that vitamin D supplementation was advised or considered or documentation that patient was referred to his/her physician for vitamin D supplementation advice.

**Balance, Strength, and Gait Training** – Medical record must include: documentation that balance, strength, and gait training/instructions were provided OR referral to an exercise program, which includes at least one of the three components: balance, strength or gait OR referral to physical therapy.

**Fall** – A sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of sudden onset of paralysis, epileptic seizure, or overwhelming external force.

**Numerator Note:** History of falls is defined as 2 or more falls in the past year or any fall with injury in the past year. Documentation of patient reported history of falls is sufficient.

**Numerator Options:**

**Performance Met:** Falls plan of care documented (0518F)

**Medical Performance Exclusion:** Documentation of medical reason(s) for no plan of care for falls (i.e., patient is not ambulatory, bed ridden, immobile, confined to chair, wheelchair bound, dependent on helper pushing wheelchair, independent in wheelchair or minimal help in wheelchair) (0518F with 1P)

**Performance Not Met:** Plan of care not documented, reason not otherwise specified (0518F with 8P)
**Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health**

**DESCRIPTION:**
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months **AND** who received cessation counseling intervention if identified as a tobacco user.

**NUMERATOR:**
Patients who were screened for tobacco use at least once within 24 months **AND** who received tobacco cessation intervention if identified as a tobacco user.

**Definitions:**
- **Tobacco Use** – Includes use of any type of tobacco.
- **Tobacco Cessation Intervention** – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

**NUMERATOR NOTE:** In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

**Numerator Options:**

**Performance Met:**
- Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

**OR**
- Current tobacco non-user (1036F)

**OR**
- **Medical Performance Exclusion:**
  - Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)

**OR**
- **Performance Not Met:**
  - Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
Measure #317: Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented – National Quality Strategy Domain: Community/Population Health

**DESCRIPTION:**
Percentage of patients aged 18 years and older seen during the reporting period who were screened for high blood pressure AND a recommended follow-up plan is documented based on the current blood pressure (BP) reading as indicated

**NUMERATOR:**
Patients who were screened for high blood pressure AND have a recommended follow-up plan documented, as indicated, if the blood pressure is pre-hypertensive or hypertensive

**Definitions:**

**Blood Pressure (BP) Classification** – BP is defined by four (4) BP reading classifications: Normal, Pre-Hypertensive, First Hypertensive, and Second Hypertensive Readings.

**Recommended BP Follow-Up** – The Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) recommends BP screening intervals, lifestyle modifications and interventions based on the current BP reading as listed in the “Recommended Blood Pressure Follow-Up Interventions” listed below.

**Recommended Lifestyle Modifications** – The JNC 7 report outlines lifestyle modifications which must include one or more of the following as indicated:

- Weight Reduction
- Dietary Approaches to Stop Hypertension (DASH) Eating Plan
- Dietary Sodium Restriction
- Increased Physical Activity
- Moderation in alcohol (ETOH) Consumption

**Second Hypertensive Reading:**
Requires a BP reading of Systolic BP ≥ 140 mmHg OR Diastolic BP ≥ 90 mmHg during the current encounter AND a most recent BP reading within the last 12 months Systolic BP ≥ 140 mmHg OR Diastolic BP ≥ 90 mmHg

**Second Hypertensive BP Reading Interventions:**
The JNC 7 report outlines BP follow-up interventions for a second hypertensive BP reading and **must** include one or more of the following as indicated:

- Anti-Hypertensive Pharmacologic Therapy
- Laboratory Tests
- Electrocardiogram (ECG)

**Recommended Blood Pressure Follow-up Interventions:**

- **Normal BP:** No follow-up required for Systolic BP <120 mmHg AND Diastolic BP < 80 mmHg
- **Pre-Hypertensive BP:** Follow-up with rescreen every year with systolic BP of 120 – 139 mmHg OR diastolic BP of 80 – 89 mmHg AND recommended lifestyle modifications OR referral to Alternate/Primary Care Provider
- **First Hypertensive BP Reading:** Patients with one elevated reading of systolic BP >= 140 mmHg OR diastolic BP >= 90 mmHg:
  - Follow-up with rescreen > 1 day and < 4 weeks AND recommend lifestyle modifications OR referral to Alternate/Primary Care Provider
- **Second Hypertensive BP Reading:** Patients with second elevated reading of systolic BP >= 140 mmHg OR diastolic BP >= 90 mmHg:
  - Follow-up with Recommended lifestyle modifications AND one or more of the Second Hypertensive Reading Interventions OR referral to Alternate/Primary Care Provider
Table 14 - Recommended Blood Pressure Follow-Up

<table>
<thead>
<tr>
<th>BP Classification</th>
<th>Systolic BP mmHg</th>
<th>Diastolic BP mmHg</th>
<th>Recommended Follow-Up (must include all indicated actions for each BP Classification)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal BP Reading</td>
<td>&lt; 120</td>
<td>AND &lt; 80</td>
<td>• No Follow-Up required</td>
</tr>
<tr>
<td>Pre-Hypertensive BP Reading</td>
<td>≥ 120 AND ≤ 139</td>
<td>OR ≥ 80 AND ≤ 89</td>
<td>• Rescreen BP within a minimum of 1 year AND Recommend Lifestyle Modifications OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Referral to Alternative/Primary Care Provider</td>
</tr>
<tr>
<td>First Hypertensive BP Reading</td>
<td>≥ 140</td>
<td>OR ≥ 90</td>
<td>• Rescreen BP within a minimum of &gt; 1 day and &lt; 4 weeks AND Recommend Lifestyle Modifications OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Referral to Alternative/Primary Care Provider</td>
</tr>
<tr>
<td>Second Hypertensive BP Reading</td>
<td>≥ 140</td>
<td>OR ≥ 90</td>
<td>• Recommend Lifestyle Modifications AND 1 or more of the Second Hypertensive Reading Interventions (see definitions) OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Referral to Alternative/Primary Care Provider</td>
</tr>
</tbody>
</table>

Not Eligible – A patient is not eligible if one or more of the following reason(s) are documented:

- Patient has an active diagnosis of hypertension
- Patient refuses to participate (either BP measurement or follow-up)
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status. This may include but is not limited to severely elevated BP when immediate medical treatment is indicated

NUMERATOR NOTE: Although the recommended screening interval for a normal BP reading is every 2 years, to meet the intent of this measure, BP screening and follow-up must be performed once per measurement period. For patients with Normal blood pressure a follow-up plan is not required.

Numerator Options:

**Performance Met:** Normal blood pressure reading documented, follow-up not required (G8783)

**OR**

**Performance Met:** Pre-Hypertensive or Hypertensive blood pressure reading documented, AND the indicated follow-up is documented (G8950)

**OR**

**Other Performance Exclusion:** Patient not eligible (e.g. documentation the patient is not eligible due to active diagnosis of hypertension, patient refuses, urgent or emergent situation, documentation the patient is not eligible (G8784)

**OR**

**Performance Not Met:** Blood pressure reading not documented, reason not given (G8785)
Performance Not Met: Pre-Hypertensive or Hypertensive blood pressure reading documented, indicated follow-up not documented, reason not given (G8952)
AOE MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #91 - ACUTE OTITIS EXTERNA (AOE): TOPICAL THERAPY
RATIONALE:
Topical preparations should be used to treat AOE as they are active against the most common bacterial pathogens in AOE, Pseudomonas aeruginosa and Staphylococcus aureus. Topical preparations are recommended as initial therapy for diffuse, uncomplicated AOE because of safety, efficacy over placebo in randomized controlled trials, and excellent clinical and bacteriologic outcomes in comparative studies. Topical preparations have demonstrated efficacy in the treatment of AOE with resolution in about 65-90% of patients.

CLINICAL RECOMMENDATION STATEMENTS:
Clinicians should prescribe topical preparations for initial therapy of diffuse, uncomplicated AOE.

(Recommendation based on randomized trials with some heterogeneity and a preponderance of benefit over harm. [Aggregate evidence quality – Grade B] (AAO-HNSF, 2014)

The purpose of this statement is to emphasize the importance of topical therapy, without systemic antibiotics, for initial management of uncomplicated AOE.

MEASURE #93 - ACUTE OTITIS EXTERNA (AOE): SYSTEMIC ANTIMICROBIAL THERAPY – AVOIDANCE OF INAPPROPRIATE USE
RATIONALE:
Despite their limited utility, about 20-40 percent of patients with AOE receive oral antibiotics, often in addition to topical therapy. “There are no data on the efficacy of systemic therapy using appropriate antibacterials and stratified by severity of the infection. Moreover, orally administered antibiotics have significant adverse effects that include rashes, vomiting, diarrhea, allergic reactions, altered nasopharyngeal flora, and development of bacterial resistance.” The use of systemic antimicrobial therapy to treat AOE should be limited only to those clinical situations in which it is indicated.

CLINICAL RECOMMENDATION STATEMENTS:
Clinicians should not prescribe systemic antimicrobials as initial therapy for diffuse, uncomplicated AOE unless there is extension outside the ear canal or the presence of specific host factors that would indicate a need for systemic therapy.

(Strong recommendation based on randomized controlled trials with minor limitations and a preponderance of benefit over harm. [Aggregate evidence quality – Grade B] (AAO-HNSF, 2014)

MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD
RATIONALE:
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), “different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing.”
In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication
information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**

The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA’s published report, The Physician’s Role in Medication Reconciliation, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

**MEASURE #131 – PAIN ASSESSMENT AND FOLLOW-UP RATIONALE:**

Chronic pain is defined as pain without biological values that has persisted beyond the normal time and despite the usual customary efforts to diagnose and treat the original condition and injury. If a patient’s pain has persisted for six weeks (or longer than the anticipated healing time), a thorough evaluation for the course of the chronic pain is warranted (ICSI, 2013).

Chronic pain affects approximately 100 million adults in the USA. (Gaskin, 2012). It is clear the enormous pain-related costs represent both a great challenge and an opportunity in terms of improving the quality and cost-effectiveness of care (Mayday Fund, 2009).

Research also shows gender differences in the experience and treatment of pain. Most chronic pain conditions are more prevalent among women; however, women’s pain complaints tend to be poorly assessed and undertreated (Green, 2003; Chronic Pain Research Alliance 2011, Weimer 2013). Although women may have higher baseline pain, differences in pain levels may not persist at one month (Peterson, 2012).

A growing body of research reveals even more extensive gaps in pain assessment and treatment among racial and ethnic populations, with minorities receiving less care for pain than non-Hispanic whites (Burgess, 2013; Green, 2003; Green, 2007; Green et al., 2011; Todd et al., 2004; Todd et al., 2007). Differences in pain care occur across all types of pain (e.g., acute, chronic, cancer-related) and medical settings (e.g., emergency departments and primary care) (Green, 2003; Green, 2007; Todd et al., 2007). Even when income, insurance status and access to health care
are accounted for, minorities are still less likely than whites to receive necessary pain treatments (Green, 2003; Green, 2007; Paulson et al., 2007). Black race is associated with neighborhood socio-economic status (SES) and race plays a role in pain outcomes beyond SES (Green, 2012).

“When assessing and treating pain, practitioner sex, race, age, and duration of experience were all significantly associated with pain management decisions. These findings suggest that pain assessment and treatment decisions may be impacted by the health care providers’ demographic characteristics, effects which may contribute to pain management disparities.” (Bartley et al., 2015).

“A standard minimum pain assessment for back-pain patients should integrate pain intensity (e.g. VAS/NRS), pain affect (e.g. five-point VRS) and pain-related disability. Depending on more detailed research questions, more sophisticated questionnaires on pain affect (e.g. MPQ), coping strategies and fear-avoidance behavior should be used. This allows for a more comprehensive assessment of pain and factors influencing pain perception.” (Haefeli M., Elfering. A., 2005).

The American Pain Foundation (2009) identified pertinent facts related to the impact of pain as follows:

- Approximately 76.5 million Americans suffer from pain.
- Pain affects more Americans than diabetes, heart disease and cancer combined. It is the number one reason people seek medical care.
- Uncontrolled pain is a leading cause of disability and diminishes quality of life for patients, survivors, and their loved ones. It interferes with all aspects of daily activity, including sleep, work, social and sexual relations.
- Under-treated pain drives up costs – estimated at $100 billion annually in healthcare expenses, lost income, and lost productivity– extending length of hospital stays, as well as increasing emergency room trips and unplanned clinic visits.
- Medically underserved populations endure a disproportionate pain burden in all health care settings.
- Disparities exist among racial and ethnic minorities in pain perception, assessment, and treatment for all types of pain, whether chronic or acute.

The Institute Of Medicine’s (IOM) Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research (2011) report suggests that chronic pain rates will continue to increase as a result of:

- More Americans will experience a disease in which chronic pain is associated (diabetes, cardiovascular disease, etc.).
- Increase in obesity which is associated with chronic conditions that have painful symptoms.
- Progress in lifesaving techniques for catastrophic injuries for people who would have previously died leads to a group of young people at risk for lifelong chronic pain.
- Surgical patients are at risk for acute and chronic pain.
- The public has a better understanding of chronic pain syndromes and new treatments and therefore may seek help when they may not have sought help in the past.

There are no current estimates of the total cost of poorly controlled pain in today’s dollars. Viewed from the perspective of health care inflation at levels of more than 40% during the past decade (President’s Council of Economic Advisors, 2009), the cost of health care due to pain is estimated to be between $261 to $300 billion. The value of lost productivity based on estimates of days of work missed is $11.6 to 12.7 billion, hours of work lost is 95.2 to $96.5 billion and lower wages is $190.6 to $226.3 billion.

**CLINICAL RECOMMENDATION STATEMENTS:**
Chronic pain assessment should include determining the mechanisms of pain through documentation of pain location, intensity, quality and onset/duration; functional ability and goals; and psychological/social factors such as depression or substance abuse.
A patient-centered, multifactorial, comprehensive care plan is necessary; one that includes biopsychosocial factors, as well as spiritual and cultural issues. It is important to have an interdisciplinary team approach which includes the primary care physician and specialty areas of psychology and physical rehabilitation.

The Institute for Clinical Systems Improvement (ICSI, 2013) Assessment and Management of Chronic Pain Guideline, Sixth Edition is based on a very broad foundation of evidence addressing a wide range of clinical conditions. It was chosen because it addresses the key factors of the comprehensive plan of care which incorporates self-management and active input from the patient and primary care clinician, pain assessment outcomes and referral to a pain medicine specialist or pain medicine specialty clinic.

The Institute for Clinical Systems Improvement (ICSI, 2012) Adult Acute and Sub-acute Low Back Pain guideline provides guidelines for physical therapists for low back pain assessment criteria, reducing or eliminating imaging for diagnosis of non-specific low back pain in patients 18 years and older, first-line treatment which emphasizes patient education and a core treatment plan that includes encouraging activity, use of heat, no imaging, cautious and responsible use of opioids, anti-inflammatory and analgesic over-the-counter medications and return to work assessment, advising patients with acute or subacute low back pain to stay active and the use of opioids.

Low Back Pain: Clinical Guidelines Linked to the International Classification of Functioning, Disability, and Health from the Orthopedic Section of the American Physical Therapy Association (Delitto, 2012) provides evidence to classify musculoskeletal conditions, specify interventions and identify appropriate outcome measures.

“Initial physical therapy management was not associated with increased health care costs or utilization of specific services following a new primary care LBP consultation” (Fritz, 2013, p. 1).

Anchored numerical scales are recommended for tracking routine progress, particularly pain interference with important activities. Regional or condition functional outcome scales should be routinely used at baseline and periodic follow-ups. More frequent follow-up is recommended with higher frequency care. (Washington State Department of Labor and Industries, 2014)

**MEASURE #154 – FALLS: RISK ASSESSMENT**

**RATIONALE:**
Screening for specific medical conditions may direct the therapy. Although the clinical guidelines and supporting evidence calls for an evaluation of many factors, it was felt that for the purposes of measuring performance and facilitating implementation this initial measure must be limited in scope. For this reason, the work group defined an evaluation of balance and gait as a core component that must be completed on all patients with a history of falls as well as four additional evaluations – at least one of which must be completed within the 12 month period. Data elements required for the measure can be captured and the measure is actionable by the physician.

**CLINICAL RECOMMENDATION STATEMENTS:**
Older people who present for medical attention because of a fall, or report recurrent falls in the past year, or demonstrate abnormalities of gait and/or balance should be offered a multifactorial falls risk assessment. This assessment should be performed by a health care professional with appropriate skills and experience, normally in the setting of a specialist falls service. This assessment should be part of an individualized, multifactorial intervention. (NICE) (Grade C)

Multifactorial assessment may include the following:
- identification of falls history
- assessment of gait, balance and mobility, and muscle weakness
- assessment of osteoporosis risk
- assessment of the older person’s perceived functional ability and fear relating to falling
- assessment of visual impairment
- assessment of cognitive impairment and neurological examination
• assessment of urinary incontinence
• assessment of home hazards
• cardiovascular examination and medication review (NICE) (Grade C)

A falls risk assessment should be performed for older persons who present for medical attention because of a fall, report recurrent falls in the past year, report difficulties in walking or balance or fear of falling, or demonstrate unsteadiness or difficulty performing a gait and balance test.

The falls risk evaluation should be performed by a clinician with appropriate skills and experience. [C]

**MEASURE #155 – FALLS: PLAN OF CARE**

**RATIONALE:**
Interventions to prevent future falls should be documented for the patient with 2 or more falls or injurious falls.

**CLINICAL RECOMMENDATION STATEMENTS:**
The USPSTF recommends exercise or physical therapy and vitamin D supplementation to prevent falls in community-dwelling adults aged 65 years or older who are at increased risk for falls.

Grade: B Recommendation.

The AGS 2010 Clinical Practice Guidelines Recommend:

Multifactorial/Multicomponent Interventions to Address Identified Risk(s) and Prevent Falls

1. A strategy to reduce the risk of falls should include multifactorial assessment of known fall risk factors and management of the risk factors identified.[A]
2. The components most commonly included in efficacious interventions were:
   a. Adaptation or modification of home environment [A]
   b. Withdrawal or minimization of psychoactive medications [B]
   c. Withdrawal or minimization of other medications [C]
   d. Management of postural hypotension [C]
   e. Management of foot problems and footwear [C]
   f. Exercise, particularly balance, strength, and gait training [A]
3. All older adults who are at risk of falling should be offered an exercise program incorporating balance, gait, and strength training. Flexibility and endurance training should also be offered, but not as sole components of the program. [A]
4. Multifactorial/multicomponent intervention should include an education component complementing and addressing issues specific to the intervention being provided, tailored to individual cognitive function and language. [C]
5. The health professional or team conducting the fall risk assessment should directly implement the interventions or should assure that the interventions are carried out by other qualified healthcare professionals. [A]

**MEASURE #226 - PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION**

**RATIONALE:**
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.
CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

MEASURE #317 - PREVENTIVE CARE AND SCREENING: SCREENING FOR HIGH BLOOD PRESSURE AND FOLLOW-UP DOCUMENTED

RATIONALE:
Hypertension is a prevalent condition that affects approximately 66.9 million people in the United States. It is estimated that about 20-40% of the adult population has hypertension; the majority of people over age 65 have a hypertension diagnosis (Appleton SL, et. al., 2012 and Luehr D, et. al., 2012). Winter (2013) noted that 1 in 3 American adults have hypertension and the lifetime risk of developing hypertension is 90% (Winter KH, et. al., 2013). The African American population or non-Hispanic Blacks, the elderly, diabetics and those with chronic kidney disease are at increased risk of stroke, myocardial infarction and renal disease. Non-Hispanic Blacks have the highest prevalence at 38.6% (Winter KH, et. al., 2013). Hypertension is a major risk factor for ischemic heart disease, left ventricular hypertrophy, renal failure, stroke and dementia (Luehr D, et. al., 2012).

Hypertension is the most common reason for adult office visits other than pregnancy. Garrison (2013) stated that in 2007, 42 million ambulatory visits were attributed to hypertension (Garrison GM and Oberhelman S, 2013). It also has the highest utilization of prescription drugs. Numerous resources and treatment options are available, yet only about 40-50% of the hypertensive patients have their blood pressure under control (<140/90) (Appleton SL, et. al., 2012, Luehr D, et. al., 2012). In addition to medication non-compliance, poor outcomes are also attributed to poor adherence to lifestyle changes such as a low-sodium diet, weight loss, increased exercise and limiting alcohol intake. Many adults find it difficult to continue medications and lifestyle changes when they are asymptomatic. Symptoms of elevated blood pressure usually do not occur until secondary problems arise such as with vascular diseases (myocardial infarction, stroke, heart failure and renal insufficiency) (Luehr D, et. al., 2012).
Appropriate follow-up after blood pressure measurement is a pivotal component in preventing the progression of hypertension and the development of heart disease. Detection of marginally or fully elevated blood pressure by a specialty clinician warrants referral to a provider familiar with the management of hypertension and prehypertension. The 2010 ACCF/AHA Guideline for the Assessment of Cardiovascular Risk in Asymptomatic Adults continues to support using a global risk score such as the Framingham Risk Score, to assess risk of coronary heart disease (CHD) in all asymptomatic adults (Greenland P, et. al., 2010). Lifestyle modifications have demonstrated effectiveness in lowering blood pressure (JNC 7, 2003). The synergistic effect of several lifestyle modifications results in greater benefits than a single modification alone. Baseline diagnostic/laboratory testing establishes if a co-existing underlying condition is the etiology of hypertension and evaluates if end organ damage from hypertension has already occurred. Landmark trials such as ALLHAT have repeatedly proven the efficacy of pharmacologic therapy to control blood pressure and reduce the complications of hypertension. Follow-up intervals based on blood pressure control have been established by the JNC 7 and the USPSTF.

**CLINICAL RECOMMENDATION STATEMENTS:**
The U.S. Preventive Services Task Force (USPSTF) recommends screening for high blood pressure in adults age 18 years and older. This is a grade A recommendation.
CARDIOVASCULAR PREVENTION MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN THE CARDIOVASCULAR PREVENTION MEASURES GROUP:
#130 Documentation of Current Medications in the Medical Record
#204 Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#236 Controlling High Blood Pressure
#317 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented
#438 Statin Therapy for the Prevention and Treatment of Cardiovascular Disease

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G9673: I intend to report the Cardiovascular Prevention Measures Group

- Report the patient sample method: 20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Cardiovascular Prevention Measures Group are for patients aged 21 years and older with a specific patient encounter:

One of the following patient encounter codes: 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, G0438, G0439

- To satisfactorily report the Cardiovascular Prevention Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional's patient sample, a minimum of once during the reporting period.

- Measure #204 need only be reported when the patient has one of the following diagnosis codes indicating Ischemic Vascular Disease (IVD) or Acute Myocardial Infarction:

I70.298, I70.299, I70.92, I74.01, I74.09, I74.10, I74.11, I74.19, I74.2, I74.3, I74.4, I74.5, I74.8, I74.9, I75.01, I75.012, I75.013, I75.019, I75.021, I75.022, I75.023, I75.029, I75.81, I75.89

OR


- Measure #236 need only be reported on patients 21 to 85 years of age who had a diagnosis of essential hypertension within the first six months of the measurement period or any time prior to the measurement period:
  - ICD-10-CM: I10

- Measure #236 does not need to be reported (is not applicable) if the patient has evidence of end stage renal disease (ESRD), dialysis or renal transplant before or during the measurement period or if the patient has a diagnosis of pregnancy during the measurement period (G9231).

- Measure #317 does not need to be reported (is not applicable) if the patient has an active diagnosis of hypertension.

- When reporting measure #317, eligible professionals must perform the blood pressure screening at the time of a qualifying visit and may not obtain measurements from external sources.

- Measure #438 has three criteria by which a patient can be eligible for the measure*. Report if patient is in at least one of the three populations below:

  Previously diagnosed or have an active diagnosis of clinical ASCVD (G9662)

  OR

  Any fasting or direct LDL-C laboratory test result ≥ 190 mg/dL (G9663)

  OR

  Patients aged 40 to 75 years at the beginning of the measurement period

  AND

  Type 1 or Type 2 diabetes diagnosis:


  AND

  The highest fasting or direct LDL-C laboratory test result of 70 – 189 mg/dL in the measurement period or two years prior to the beginning of the measurement period (G9666)

*All patients who meet one or more of the criteria indicated above would be considered at “high risk” for cardiovascular events under the 2013 ACC/AHA guidelines.
• Instructions for qualifying numerator option reporting for each of the measures within the Cardiovascular Prevention Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

**Composite QDC G9677:** All quality actions for the applicable measures in the Cardiovascular Prevention Measures Group have been performed for this patient

• Measure Group Reporting Calculations:

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

• **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record --
National Quality Strategy Domain: Patient Safety

DESCRIPTION:
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration.

NUMERATOR:
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency and route of administration.

Definitions:
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.
Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).
Not Eligible - A patient is not eligible if the following reason is documented:
• Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

NUMERATOR NOTE: The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

Numerator Options:
Performance Met: Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

OR

Other Performance Exclusion: Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

OR

Performance Not Met: Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #204 (NQF 0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic – National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients 18 years of age and older who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous coronary interventions (PCI) in the 12 months prior to the measurement period, or who had an active diagnosis of ischemic vascular disease (IVD) during the measurement period, and who had documentation of use of aspirin or another antithrombotic during the measurement period.

NUMERATOR:
Patients who have documentation of use of aspirin or another antithrombotic therapy during the measurement period.

Numerator Instructions: Oral antithrombotic therapy consists of aspirin, clopidogrel, combination of aspirin and extended release dipyridamole, prasugrel, ticagrelor or ticlopidine.

Numerator Options:
Performance Met: Aspirin or another antithrombotic therapy used (G8598)
OR
Performance Not Met: Aspirin or another antithrombotic therapy not used, reason not given (G8599)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user.

Definitions:
- **Tobacco Use** – Includes use of any type of tobacco.
- **Tobacco Cessation Intervention** – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

**NUMERATOR NOTE**: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
- **Performance Met**: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)
- **OR**
  - **Performance Met**: Current tobacco non-user (1036F)
- **OR**
  - **Medical Performance Exclusion**: Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)
- **OR**
  - **Performance Not Met**: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
Measure #236 (NQF 0018): Controlling High Blood Pressure -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients 18 through 85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (< 140/90 mmHg) during the measurement period.

NUMERATOR:
Patients whose blood pressure at the most recent visit is adequately controlled (systolic blood pressure < 140 mmHg and diastolic blood pressure < 90 mmHg) during the measurement period.

Numerator Instructions: To describe both systolic and diastolic blood pressure values, each must be reported separately. If there are multiple blood pressures on the same date of service, use the lowest systolic and lowest diastolic blood pressure on that date as the representative blood pressure.

Numerator Options:
Performance Met: Most recent systolic blood pressure < 140 mmHg (G8752)

OR
Performance Not Met: Most recent systolic blood pressure ≥ 140 mmHg (G8753)

AND
Performance Met: Most recent diastolic blood pressure < 90 mmHg (G8754)

OR
Performance Not Met: Most recent diastolic blood pressure ≥ 90 mmHg (G8755)

OR
Performance Not Met: No documentation of blood pressure measurement, reason not given (G8756)
**Measure #317: Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented – National Quality Strategy Domain: Community/Population Health**

**DESCRIPTION:**
Percentage of patients aged 18 years and older seen during the reporting period who were screened for high blood pressure AND a recommended follow-up plan is documented based on the current blood pressure (BP) reading as indicated

**NUMERATOR:**
Patients who were screened for high blood pressure AND have a recommended follow-up plan documented, as indicated, if the blood pressure is pre-hypertensive or hypertensive

**Definitions:**

**Blood Pressure (BP) Classification** – BP is defined by four (4) BP reading classifications: Normal, Pre-Hypertensive, First Hypertensive, and Second Hypertensive Readings.

**Recommended BP Follow-Up** – The Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) recommends BP screening intervals, lifestyle modifications and interventions based on the current BP reading as listed in the “Recommended Blood Pressure Follow-Up Interventions” listed below.

**Recommended Lifestyle Modifications** – The JNC 7 report outlines lifestyle modifications which must include one or more of the following as indicated:
- Weight Reduction
- Dietary Approaches to Stop Hypertension (DASH) Eating Plan
- Dietary Sodium Restriction
- Increased Physical Activity
- Moderation in alcohol (ETOH) Consumption

**Second Hypertensive Reading:**
Requires a BP reading of Systolic BP ≥ 140 mmHg OR Diastolic BP ≥ 90 mmHg during the current encounter AND a most recent BP reading within the last 12 months Systolic BP ≥ 140 mmHg OR Diastolic BP ≥ 90 mmHg

**Second Hypertensive BP Reading Interventions:**
The JNC 7 report outlines BP follow-up interventions for a second hypertensive BP reading and **must** include one or more of the following as indicated:
- Anti-Hypertensive Pharmacologic Therapy
- Laboratory Tests
- Electrocardiogram (ECG)

**Recommended Blood Pressure Follow-up Interventions:**
- **Normal BP:** No follow-up required for Systolic BP <120 mmHg AND Diastolic BP < 80 mmHg
- **Pre-Hypertensive BP:** Follow-up with rescreen every year with systolic BP of 120 – 139 mmHg OR diastolic BP of 80 – 89 mmHg AND recommended lifestyle modifications OR referral to Alternate/Primary Care Provider
- **First Hypertensive BP Reading:** Patients with one elevated reading of systolic BP >= 140 mmHg OR diastolic BP >= 90 mmHg:
  - Follow-up with rescreen > 1 day and < 4 weeks AND recommend lifestyle modifications OR referral to Alternative/Primary Care Provider
- **Second Hypertensive BP Reading:** Patients with second elevated reading of systolic BP >= 140 mmHg OR diastolic BP >= 90 mmHg:
  - Follow-up with Recommended lifestyle modifications AND one or more of the Second Hypertensive Reading Interventions OR referral to Alternate/Primary Care Provider
# Table 15 - Recommended Blood Pressure Follow-Up

<table>
<thead>
<tr>
<th>BP Classification</th>
<th>Systolic BP mmHg</th>
<th>Diastolic BP mmHg</th>
<th>Recommended Follow-Up (must include all indicated actions for each BP Classification)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal BP Reading</td>
<td>&lt; 120</td>
<td>AND &lt; 80</td>
<td>• No Follow-Up required</td>
</tr>
<tr>
<td>Pre-Hypertensive BP Reading</td>
<td>≥ 120 AND ≤ 139</td>
<td>≥ 80 AND ≤ 89</td>
<td>• Rescreen BP within a minimum of 1 year AND Recommend Lifestyle Modifications OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Referral to Alternative/Primary Care Provider</td>
</tr>
<tr>
<td>First Hypertensive BP Reading</td>
<td>≥ 140</td>
<td>∨ ≥ 90</td>
<td>• Rescreen BP within a minimum of &gt; 1 day and &lt; 4 weeks AND Recommend Lifestyle Modifications OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Referral to Alternative/Primary Care Provider</td>
</tr>
<tr>
<td>Second Hypertensive BP Reading</td>
<td>≥ 140</td>
<td>∨ ≥ 90</td>
<td>• Recommend Lifestyle Modifications AND 1 or more of the Second Hypertensive Reading Interventions (see definitions) OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Referral to Alternative/Primary Care Provider</td>
</tr>
</tbody>
</table>

**Not Eligible** – A patient is not eligible if one or more of the following reason(s) are documented:

- Patient has an active diagnosis of hypertension
- Patient refuses to participate (either BP measurement or follow-up)
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status. This may include but is not limited to severely elevated BP when immediate medical treatment is indicated

**NUMERATOR NOTE:** Although the recommended screening interval for a normal BP reading is every 2 years, to meet the intent of this measure, BP screening and follow-up must be performed once per measurement period. For patients with Normal blood pressure a follow-up plan is not required.

**Numerator Options:**

**Performance Met:**

- Normal blood pressure reading documented, follow-up not required (G8783)

**OR**

**Performance Met:**

- Pre-Hypertensive or Hypertensive blood pressure reading documented, AND the indicated follow-up is documented (G8950)

**OR**

**Other Performance Exclusion:**

- Patient not eligible (e.g. documentation the patient is not eligible due to active diagnosis of hypertension, patient refuses, urgent or emergent situation, documentation the patient is not eligible (G8784)

**OR**

**Performance Not Met:**

- Blood pressure reading not documented, reason not given (G8785)

**OR**
**Performance Not Met:**

Pre-Hypertensive or Hypertensive blood pressure reading documented, indicated follow-up not documented, reason not given (G8952)
**Measure #438: Statin Therapy for the Prevention and Treatment of Cardiovascular Disease -- National Quality Strategy Domain: Effective Clinical Care**

**DESCRIPTION:**
Percentage of the following patients—all considered at high risk of cardiovascular events—who were prescribed or were on statin therapy during the measurement period:

- Adults aged ≥ 21 years who were previously diagnosed with or currently have an active diagnosis of clinical atherosclerotic cardiovascular disease (ASCVD); OR
- Adults aged ≥21 years with a fasting or direct low-density lipoprotein cholesterol (LDL-C) level ≥ 190 mg/dL; OR
- Adults aged 40-75 years with a diagnosis of diabetes with a fasting or direct LDL-C level of 70-189 mg/dL

**NUMERATOR**
Patients who are statin therapy users during the measurement period or who receive an order (prescription) to receive statin therapy at any point during the measurement period

**Definitions:**
**Clinical Atherosclerotic Cardiovascular Disease (ASCVD) Defined as -**
- Acute Coronary Syndromes
- History of Myocardial Infarction
- Stable or Unstable Angina
- Coronary or other Arterial Revascularization
- Stroke or Transient Ischemic Attack (TIA)
- Peripheral Arterial Disease of Atherosclerotic Origin

**Lipoprotein Density Cholesterol (LDL-C)** - A fasting or direct LDL-C laboratory test performed and test result documented in the medical record.

**Active Liver Disease or Hepatic Disease or Insufficiency** – The following codes are included in the Medical Performance Exclusion (G9667) to define liver disease: B17.0, B17.2, B17.8, B17.10, B17.11, B18.2, B18.8, B18.9, B19.0, B19.20, B19.21, K70.0, K70.9, K70.30, K70.31, K70.40, K70.41, K71.3, K71.4, K71.9, K71.10, K71.11, K71.50, K71.51, K72.00, K72.01, K72.10, K72.11, K72.20, K72.21, K72.90, K72.91, K73.0, K73.2, K73.8, K73.9, K74.0, K74.1, K74.2, K74.3, K74.4, K74.5, K74.60, K74.69, K75.4, K76.0, K76.2, K76.3, K76.7, K76.9, K76.89, O98.419

**Statin therapy** - Administration of one or more of a group of medications that are used to lower plasma lipoprotein levels in the treatment of hyperlipoproteinemia; the group includes all statin-containing medication (HMG-CoA [3-hydroxy-3-methylglutaryl coenzyme A] Reductase Inhibitors).

Sample list of statin medications (list is NOT inclusive of all agents) is included in the clinical recommendations.

**NUMERATOR NOTE:** In order to meet the measure, a current statin medication therapy use must be documented in the current medication list. Statin therapy use is considered active for the measurement period if it is active during any denominator-eligible encounter. Only statin therapy meets measure Numerator criteria (NOT other cholesterol lowering medications). Prescription or order does not need to be linked to an encounter or visit; may be called to the pharmacy. Statin medication “samples” provided to patients can be documented as “current statin therapy” if documented/specified in the medication list in health/medical record. Patients who meet the denominator criteria for inclusion but are not using statin therapy will not meet performance for this measure. Adherence is not calculated in this measure.
**Numerator Options:**

**Performance Met:**

Patients who are currently statin therapy users or received an order (prescription) for statin therapy (G9664)

OR

**Medical Performance Exclusion:**

Documentation of medical reason(s) for not currently being a statin therapy user or receive an order (prescription) for statin therapy (e.g., patient with adverse effect, allergy or intolerance to statin medication therapy, patients who have an active diagnosis of pregnancy or who are breastfeeding, patients who are receiving palliative care, patients with active liver disease or hepatic disease or insufficiency, patients with end stage renal disease (ESRD), and patients with diabetes who have a fasting or direct LDL-C laboratory test result < 70 mg/dL and are not taking statin therapy) (G9667)

OR

**Performance Not Met:**

Patients who are not currently statin therapy users or did not receive an order (prescription) for statin therapy (G9665)
CARDIOVASCULAR PREVENTION MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD

RATIONALE:
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), “different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient’s medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing.”

In addition, providers need to periodically review all of a patient’s medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting “Adverse Drug events in U.S. Adult Ambulatory Medical Care,” ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA’s published report, The Physician’s Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).
A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

CLINICAL RECOMMENDATION STATEMENTS:
The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA's published report, The Physician’s Role in Medication Reconciliation, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.
MEASURE #204 - ISCHEMIC VASCULAR DISEASE (IVD): USE OF ASPIRIN OR ANOTHER ANTITHROMBOTIC RATIONALE:

Coronary heart disease (CHD) is a major cause of death in the United States – in 2004, it was an underlying or contributing cause of death for 451,300 people (1 of every 5 deaths). Acute myocardial infarction (AMI) was as an underlying or contributing cause of death for 156,000 people (American Heart Association 2008). In addition, nearly 16 million people (or 7.3 percent of the American population) had CHD in 2005 (American Heart Association 2008). The cost of cardiovascular diseases and stroke in the United States for 2008 was estimated at $448.5 billion (American Heart Association 2008). This figure includes health expenditures (direct costs such as the cost of physicians and healthcare practitioners, hospital and nursing home services, medications, home health care and other medical durables) and lost productivity resulting from morbidity and mortality (indirect costs). AMI accounts for 18 percent of hospital discharges and 28 percent of deaths due to heart disease (National Heart, Lung, and Blood Institute 2000). Research has shown that costs associated with cardiovascular disease for hospitals are easily $156 billion (American Heart Association 2008).

Aspirin treatments reduce MI in men (127 events per 100,000 person-years) and women (17 events per 100,000 person-years) (Grieving et al. 2008). While studies have shown warfarin to be more effective, aspirin is a safer, more convenient, and less expensive form of therapy (Patrono et al. 2004). Aspirin therapy has been shown to directly reduce the odds of cardiovascular events among men by 14 percent and among women by 12 percent (Berger et al. 2006). Aspirin use has been shown to reduce the number of strokes by 20 percent, MI by 30 percent, and other vascular events by 30 percent (Weisman and Graham 2002).

CLINICAL RECOMMENDATION STATEMENTS:

U.S. Preventive Services Task Force (2009):
The U.S. Preventive Services Task Force (USPSTF) strongly recommends that clinicians discuss aspirin chemoprevention with adults who are at increased risk (5-year risk of greater than or equal to 3 percent) for coronary heart disease (CHD). Discussions with patients should address both the potential benefits and harms of aspirin therapy.

The USPSTF found good evidence that aspirin decreases the incidence of coronary heart disease in adults who are at increased risk for heart disease. They also found good evidence that aspirin increases the incidence of gastrointestinal bleeding and fair evidence that aspirin increases the incidence of hemorrhagic strokes. The USPSTF concluded that the balance of benefits and harms is most favorable in patients at high risk of CHD (5-year risk of greater than or equal to 3 percent) but is also influenced by patient preferences.

USPSTF encourages men age 45 to 79 years to use aspirin when the potential benefit of a reduction in myocardial infarctions outweighs the potential harm of an increase in gastrointestinal hemorrhage. They encourage women age 55 to 79 years to use aspirin when the potential benefit of a reduction in ischemic strokes outweighs the potential harm of an increase in gastrointestinal hemorrhage.

American Diabetes Association (2008):
Use aspirin therapy (75-162 mg/day) as a primary prevention strategy in those with type 1 or 2 diabetes at increased cardiovascular risk, including those who are 40 years of age or who have additional risk factors (family history of CVD, hypertension, smoking, dyslipidemia, or albuminuria).

American Heart Association/American Stroke Association (2006):
AHA/ASA: The use of aspirin is recommended for cardiovascular (including but not specific to stroke) prophylaxis among persons whose risk is sufficiently high for the benefits to outweigh the risks associated with treatment (a 10-year risk of cardiovascular events of 6% to 10%).

American College of Clinical Pharmacy (2004):
For long-term treatment after PCI, the guideline developers recommend aspirin, 75 to 162 mg/day. For long-term treatment after PCI in patients who receive antithrombotic agents such as clopidogrel or warfarin, the guideline
developers recommend lower-dose aspirin, 75 to 100 mg/day. For patients with ischemic stroke who are not receiving thrombolysis, the guideline developers recommend early aspirin therapy, 160 to 325 mg/day.

**MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSION INTERVENTION**

Rationale:
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

**MEASURE #236 – CONTROLLING HIGH BLOOD PRESSURE**

**RATIONALE:**
Hypertension is a very significant health issue in the United States. Fifty million or more Americans have high blood pressure that warrants treatment, according to the National Health and Nutrition Examination Survey (NHANES) survey (Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure 2003). The United States Preventive Services Task Force (USPSTF) recommends that clinicians screen adults aged 18 and older for high blood pressure (United States Preventive Services Task Force 2007).

The most frequent and serious complications of uncontrolled hypertension include coronary heart disease, congestive heart failure, stroke, ruptured aortic aneurysm, renal disease, and retinopathy. The increased risks of hypertension are present in individuals ranging from 40 to 89 years of age. For every 20 mmHg systolic or 10 mmHg...
diastolic increase in blood pressure, there is a doubling of mortality from both ischemic heart disease and stroke (Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure 2003).

Better control of blood pressure has been shown to significantly reduce the probability that these undesirable and costly outcomes will occur. The relationship between the measure (control of hypertension) and the long-term clinical outcomes listed is well established. In clinical trials, antihypertensive therapy has been associated with reductions in stroke incidence (35-40 percent), myocardial infarction incidence (20-25 percent) and heart failure incidence (>50 percent) (Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure 2003).

**CLINICAL RECOMMENDATION STATEMENTS:**
The United States Preventive Services Task Force (2007) recommends screening for high blood pressure in adults age 18 years and older. This is a grade A recommendation.


Treating systolic blood pressure and diastolic blood pressure to targets that are < 140/90 mmHg is associated with a decrease in cardiovascular disease complications.

**MEASURE #317 - PREVENTIVE CARE AND SCREENING: SCREENING FOR HIGH BLOOD PRESSURE AND FOLLOW-UP DOCUMENTED**

**RATIONALE:**
Hypertension is a prevalent condition that affects approximately 66.9 million people in the United States. It is estimated that about 20-40% of the adult population has hypertension; the majority of people over age 65 have a hypertension diagnosis (Appleton SL, et. al., 2012 and Luehr D, et. al., 2012). Winter (2013) noted that 1 in 3 American adults have hypertension and the lifetime risk of developing hypertension is 90% (Winter KH, et. al., 2013). The African American population or non-Hispanic Blacks, the elderly, diabetics and those with chronic kidney disease are at increased risk of stroke, myocardial infarction and renal disease. Non-Hispanic Blacks have the highest prevalence at 38.6% (Winter KH, et. al., 2013). Hypertension is a major risk factor for ischemic heart disease, left ventricular hypertrophy, renal failure, stroke and dementia (Luehr D, et. al., 2012).

Hypertension is the most common reason for adult office visits other than pregnancy. Garrison (2013) stated that in 2007, 42 million ambulatory visits were attributed to hypertension (Garrison GM and Oberhelman S, 2013). It also has the highest utilization of prescription drugs. Numerous resources and treatment options are available, yet only about 40-50% of the hypertensive patients have their blood pressure under control (<140/90) (Appleton SL, et. al., 2012, Luehr D, et. al., 2012). In addition to medication non-compliance, poor outcomes are also attributed to poor adherence to lifestyle changes such as a low-sodium diet, weight loss, increased exercise and limiting alcohol intake. Many adults find it difficult to continue medications and lifestyle changes when they are asymptomatic. Symptoms of elevated blood pressure usually do not occur until secondary problems arise such as with vascular diseases (myocardial infarction, stroke, heart failure and renal insufficiency) (Luehr D, et. al., 2012).

Appropriate follow-up after blood pressure measurement is a pivotal component in preventing the progression of hypertension and the development of heart disease. Detection of marginally or fully elevated blood pressure by a specialty clinician warrants referral to a provider familiar with the management of hypertension and prehypertension. The 2010 ACCF/AHA Guideline for the Assessment of Cardiovascular Risk in Asymptomatic Adults continues to support using a global risk score such as the Framingham Risk Score, to assess risk of coronary heart disease (CHD) in all asymptomatic adults (Greenland P, et. al., 2010). Lifestyle modifications have demonstrated effectiveness in lowering blood pressure (JNC 7, 2003). The synergistic effect of several lifestyle modifications results in greater benefits than a single modification alone. Baseline diagnostic/laboratory testing establishes if a co-existing underlying condition is the etiology of hypertension and evaluates if end organ damage from hypertension has already occurred. Landmark trials such as ALLHAT have repeatedly proven the efficacy of pharmacologic therapy to
control blood pressure and reduce the complications of hypertension. Follow-up intervals based on blood pressure control have been established by the JNC 7 and the USPSTF.

**CLINICAL RECOMMENDATION STATEMENTS:**
The U.S. Preventive Services Task Force (USPSTF) recommends screening for high blood pressure in adults age 18 years and older. This is a grade A recommendation.

**MEASURE #438 - STATIN THERAPY FOR THE PREVENTION AND TREATMENT OF CARDIOVASCULAR DISEASE**

**RATIONALE:**
This measure specification is based on the following clinical guidelines: “2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults: A Report of the American College of Cardiology [ACC]/American Heart Association [AHA] Task Force on Practice Guidelines” (Stone et al. 2013). It is an update to the National Cholesterol Education Program (NCEP), National Heart, Lung, and Blood Institute (NHLBI), and National Institutes of Health (NIH) guideline called ATP III, published in 2002.

To produce the 2013 ACC/AHA guidelines, an expert panel synthesized evidence from randomized controlled trials to identify people most likely to benefit from cholesterol-lowering therapy. The 2013 ACC/AHA guidelines are intended to provide a strong evidence-based foundation for the treatment of blood cholesterol for the primary and secondary prevention and treatment of ASCVD in adult men and women (>= 21 years of age). The evidence demonstrated that cholesterol management recommendations should be based on a treatment strategy to incorporate optimal doses of statin therapy rather than on achievement of a target LDL-C level; however, it is important to monitor LDL cholesterol levels.

The 2013 ACC/AHA guidelines identify four major statin benefit categories:

1. Secondary prevention in individuals with clinical ASCVD
2. Primary prevention in individuals with primary elevations (i.e., initial readings) of LDL-C >= 190 mg/dL
3. Primary prevention in individuals with diabetes ages 40 to 75 years who have LDL-C 70 to 189 mg/dL
4. Primary prevention in individuals ages 40 to 75 years without diabetes but with estimated 10-year ASCVD risk >= 7.5%, and LDL-C 70 to 189 mg/dL

The first three of these four categories were deemed “high risk” in the 2013 ACC/AHA guidelines, so this measure of statin therapy focuses on patients in those high-risk categories. Stone et al. (2013) state as follows:

The Expert Panel found extensive and consistent evidence supporting the use of statins for the prevention of ASCVD in many higher-risk primary- and all secondary-prevention individuals without New York Heart Association class II–IV heart failure who were not receiving hemodialysis.

In addition, the relative reduction in ASCVD risk is consistent for primary and secondary prevention and for various patient subgroups. Therefore, statin therapy is recommended for individuals at increased ASCVD risk who are most likely to experience a net benefit in terms of the potential for ASCVD risk reduction and the potential for adverse effects.

**CLINICAL RECOMMENDATION STATEMENTS:**
The addition of statin therapy reduces the risk of cardiovascular events (such as stroke and myocardial infarction) among high-risk individuals, defined as follows: individuals with clinical ASCVD, with LDL-C >= 190 mg/dL, or with diabetes and LDL-C 70–189 mg/dL (Stone et al. 2013).

This electronic clinical quality measure aligns with the 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol (Stone et al. 2013), which indicates the use of statins as the first line of cholesterol-lowering medication therapy to reduce the risk of ASCVD among those who currently do not have an ASCVD diagnosis and to lower the risk of cardiovascular events (such as stroke and myocardial infarction) among at-risk populations.
Intensity of statin therapy in primary and secondary prevention:
The expert panel of the 2013 ACC/AHA Guidelines (Stone et al. 2013) defines recommended intensity of statin therapy on the basis of the average expected LDL-C response to specific statin and dose. Although intensity of statin therapy is important in managing cholesterol, this measure assesses prescription of ANY statin therapy, irrespective of intensity. Assessment of appropriate intensity and dosage documentation added too much complexity to allow inclusion of statin therapy intensity in the measure at this time.

Table 15 - Sample (List is NOT inclusive of all agents) Statin Medication Therapy List

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand or Trade Name</th>
<th>Medication Type, If Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atorvastatin</td>
<td>Lipitor</td>
<td>Statin</td>
</tr>
<tr>
<td>Fluvastatin</td>
<td>Lescol XL or Lescol</td>
<td>Statin</td>
</tr>
<tr>
<td>Lovastatin (Mevinolin)</td>
<td>Mevacor or Altoprev</td>
<td>Statin</td>
</tr>
<tr>
<td>Pitavastatin</td>
<td>Livalo</td>
<td>N/A</td>
</tr>
<tr>
<td>Pravastatin Sodium</td>
<td>Pravachol</td>
<td>Statin</td>
</tr>
<tr>
<td>Rosuvastatin Calcium</td>
<td>Crestor</td>
<td>Statin</td>
</tr>
<tr>
<td>Simvastatin</td>
<td>Zocor</td>
<td>Statin</td>
</tr>
<tr>
<td>Amlodipine Besylate/Atorvastatin Calcium</td>
<td>Caduet</td>
<td>Combination</td>
</tr>
<tr>
<td>Ezetimibe/Simvastatin</td>
<td>Vytorin</td>
<td>Combination</td>
</tr>
<tr>
<td>Niacin/Lovastatin</td>
<td>Advicor</td>
<td>Combination</td>
</tr>
<tr>
<td>Niacin/Simvastatin</td>
<td>Simcor</td>
<td>Combination</td>
</tr>
<tr>
<td>Sitagliptin/Simvastatin</td>
<td>Juvisync</td>
<td>Diabetes Combination</td>
</tr>
<tr>
<td>Sitagliptin Phosphate/Simvastatin</td>
<td>Juntadueto</td>
<td>Diabetes Combination</td>
</tr>
</tbody>
</table>
DIABETIC RETINOPATHY MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN DIABETIC RETINOPATHY MEASURES GROUP:
#1 Diabetes: Hemoglobin A1c Poor Control
#18 Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy
#19 Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care
#117 Diabetes: Eye Exam
#130 Documentation of Current Medications in the Medical Record
#226 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention
#317 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented

INSTRUCTIONS FOR REPORTING:
• It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G9671: I intend to report the Diabetic Retinopathy Measures Group

• Report the patient sample method:
 20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

• Patient sample criteria for the Diabetic Retinopathy Measures Group are patients aged 18 through 75 years with a specific diagnosis of diabetic retinopathy accompanied by a specific patient encounter:
  
  The following diagnosis codes indicating diabetic retinopathy:

  Accompanied by:

  One of the following patient encounter codes: 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215

• To satisfactorily report the Diabetic Retinopathy Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

• Measure #19 does not need to be reported (is not applicable) when the reporting provider manages the patient’s diabetes care.

• Measure #317 does not need to be reported (is not applicable) if the patient has an active diagnosis of hypertension.

• When reporting measure #317, eligible professionals must perform the blood pressure screening at the time of a qualifying visit and may not obtain measurements from external sources.
• Instructions for qualifying numerator option reporting for each of the measures within the Diabetic Retinopathy Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

Composite QDC G9672: All quality actions for the applicable measures in the Diabetic Retinopathy Measures Group have been performed for this patient

• This measures group contains one or more inverse measures. An inverse measure is a measure that represents a poor clinical quality action as meeting performance for the measure. For these measures, a lower performance rate indicates a higher quality of clinical care. Composite codes for measures groups that contain inverse measures are only utilized when the appropriate quality clinical care is given.

• The composite code for this measures group may be reported when codes in the summary table below are applicable for reporting of each measure within the measures group.

Table 16 - QDC Options

<table>
<thead>
<tr>
<th>Measure</th>
<th>#1*</th>
<th>#18</th>
<th>#19</th>
<th>#117</th>
<th>#130</th>
<th>#226</th>
<th>#317</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDC options for acceptable use of the composite QDC</td>
<td>3044F or 3045F</td>
<td>2021F</td>
<td>5010F and G8397</td>
<td>2022F or 2024F or 2026F or 3072F</td>
<td>G8427</td>
<td>4004F or 1036F</td>
<td>G8783 or G8950</td>
</tr>
</tbody>
</table>

*Indicates an inverse measure

• Measure Group Reporting Calculations:

Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.

Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

When a lower rate indicates better performance, such as Measure #1, a 0% performance rate will be counted as satisfactorily reporting (100% performance rate would not be considered satisfactorily reporting).

• NOTE: The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #1 (NQF 0059): Diabetes: Hemoglobin A1c Poor Control -- National Quality Strategy
Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients 18-75 years of age with diabetes who had hemoglobin A1c > 9.0% during the measurement period

NUMERATOR:
Patients whose most recent HbA1c level (performed during the measurement period) is > 9.0%

Numerator Instructions:
INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The “Performance Not Met” numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

Patient is numerator compliant if most recent HbA1c level >9% or is missing a result or if an HbA1c test was not done during the measurement year. Ranges and thresholds do not meet criteria for this indicator. A distinct numeric result is required for numerator compliance.

Numerator Options:

Performance Met: Most recent hemoglobin A1c level > 9.0% (3046F)

OR

Performance Met: Hemoglobin A1c level was not performed during the measurement period (12 months) (3046F with 8P)

OR

Performance Not Met: Most recent hemoglobin A1c (HbA1c) level < 7.0% (3044F)

OR

Performance Not Met: Most recent hemoglobin A1c (HbA1c) level 7.0 to 9.0% (3045F)
Measure #18 (NQF 0088): Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed which included documentation of the level of severity of retinopathy and the presence or absence of macular edema during one or more office visits within 12 months.

NUMERATOR:
Patients who had a dilated macular or fundus exam performed which included documentation of the level of severity of retinopathy AND the presence or absence of macular edema during one or more office visits within 12 months.

Definitions:
Documentation - The medical record must include: documentation of the level of severity of retinopathy AND documentation of whether macular edema was present or absent.
Macular Edema - Acceptable synonyms for macular edema include: macular thickening, intraretinal thickening, serous detachment of the retina, or pigment epithelial detachment.
Severity of Retinopathy - Mild nonproliferative, moderate nonproliferative, severe nonproliferative, very severe nonproliferative, proliferative.

Numerator Options:
Performance Met:
Dilated macular or fundus exam performed, including documentation of the presence or absence of macular edema AND level of severity of retinopathy (2021F)

OR
Medical Performance Exclusion:
Documentation of medical reason(s) for not performing a dilated macular or fundus examination (2021F with 1P)

OR
Patient Performance Exclusion:
Documentation of patient reason(s) for not performing a dilated macular or fundus examination (2021F with 2P)

OR
Performance Not Met:
Dilated macular or fundus exam was not performed, reason not otherwise specified (2021F with 8P)
Measure #19 (NQF 0089): Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care – National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months.

NUMERATOR:
Patients with documentation, at least once within 12 months, of the findings of the dilated macular or fundus exam via communication to the physician who manages the patient’s diabetic care.

Definitions:
Communication – May include documentation in the medical record indicating that the findings of the dilated macular or fundus exam were communicated (e.g., verbally, by letter) with the clinician managing the patient’s diabetic care OR a copy of a letter in the medical record to the clinician managing the patient’s diabetic care outlining the findings of the dilated macular or fundus exam.

Findings – Includes level of severity of retinopathy (e.g., mild nonproliferative, moderate nonproliferative, severe nonproliferative, very severe nonproliferative, proliferative) AND the presence or absence of macular edema.

Numerator Options:
Performance Met: Findings of dilated macular or fundus exam communicated to the physician or other qualified health care professional managing the diabetes care (5010F) AND Dilated macular or fundus exam performed, including documentation of the presence or absence of macular edema AND level of severity of retinopathy (G8397)

OR

Medical Performance Exclusion: Documentation of medical reason(s) for not communicating the findings of the dilated macular or fundus exam to the physician who manages the ongoing care of the patient with diabetes (5010F with 1P)

OR

Patient Performance Exclusion: Documentation of patient reason(s) for not communicating the findings of the dilated macular or fundus exam to the physician who manages the ongoing care of the patient with diabetes (5010F with 2P) AND Dilated macular or fundus exam performed, including documentation of the presence or absence of macular edema AND level of severity of retinopathy (G8397)

OR

Other Performance Exclusion: Dilated macular or fundus exam not performed (G8398)

OR
**Performance Not Met:**

Findings of dilated macular or fundus exam were not communicated to the physician managing the diabetes care, reason not otherwise specified (5010F with 8P)

**AND**

Dilated macular or fundus exam performed, including documentation of the presence or absence of macular edema AND level of severity of retinopathy (G8397)
Measure #117 (NQF 0055): Diabetes: Eye Exam -- National Quality Strategy Domain: Effective Clinical Care

DESCRIPTION:
Percentage of patients 18-75 years of age with diabetes who had a retinal or dilated eye exam by an eye care professional during the measurement period or a negative retinal or dilated eye exam (no evidence of retinopathy) in the 12 months prior to the measurement period

NUMERATOR:
Patients with an eye screening for diabetic retinal disease. This includes diabetics who had one of the following: A retinal or dilated eye exam by an eye care professional in the measurement period or a negative retinal or dilated exam (no evidence of retinopathy) by an eye care professional in the year prior to the measurement period

NUMERATOR NOTE: The eye exam must be performed or reviewed by an ophthalmologist or optometrist. Alternatively, results may be read by a qualified reading center that operates under the direction of a medical director who is a retinal specialist.

Numerator Options:
Performance Met: Dilated retinal eye exam with interpretation by an ophthalmologist or optometrist documented and reviewed (2022F)

OR
Performance Met: Seven standard field stereoscopic photos with interpretation by an ophthalmologist or optometrist documented and reviewed (2024F)

OR
Performance Met: Eye imaging validated to match diagnosis from seven standard field stereoscopic photos results documented and reviewed (2026F)

OR
Performance Met: Low risk for retinopathy (no evidence of retinopathy in the prior year) (3072F)*

*NOTE: This code can only be used if the encounter was during the measurement period because it indicates that the patient had “no evidence of retinopathy in the prior year”. This code definition indicates results were negative, therefore a result is not required.

OR
Performance Not Met: Dilated eye exam was not performed, reason not otherwise specified (2022F or 2024F or 2026F with 8P)
**Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record -- National Quality Strategy Domain: Patient Safety**

**DESCRIPTION:**
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosage, frequency and route of administration.

**NUMERATOR:**
Eligible professional attests to documenting, updating or reviewing a patient's current medications using all immediate resources available on the date of encounter. This list must include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements AND must contain the medications' name, dosages, frequency and route of administration.

**Definitions:**
Current Medications – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.

Route - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).

Not Eligible - A patient is not eligible if the following reason is documented:
- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

**NUMERATOR NOTE:** The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

**Numerator Options:**

**Performance Met:**
Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

**OR**

**Other Performance Exclusion:**
Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

**OR**

**Performance Not Met:**
Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #226 (NQF 0028): Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user

NUMERATOR:
Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation intervention if identified as a tobacco user

Definitions:
Tobacco Use – Includes use of any type of tobacco.
Tobacco Cessation Intervention – Includes brief counseling (3 minutes or less), and/or pharmacotherapy.

NUMERATOR NOTE: In the event that a patient is screened for tobacco use and identified as a user but did not receive tobacco cessation intervention report 4004F with 8P.

Numerator Options:
Performance Met: Patient screened for tobacco use AND received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (4004F)

OR
Performance Met: Current tobacco non-user (1036F)

OR
Medical Performance Exclusion: Documentation of medical reason(s) for not screening for tobacco use (eg, limited life expectancy, other medical reasons) (4004F with 1P)

OR
Performance Not Met: Tobacco screening OR tobacco cessation intervention not performed, reason not otherwise specified (4004F with 8P)
**Measure #317: Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented – National Quality Strategy Domain: Community/Population Health**

**DESCRIPTION:**
Percentage of patients aged 18 years and older seen during the reporting period who were screened for high blood pressure AND a recommended follow-up plan is documented based on the current blood pressure (BP) reading as indicated.

**NUMERATOR:**
Patients who were screened for high blood pressure AND have a recommended follow-up plan documented, as indicated, if the blood pressure is pre-hypertensive or hypertensive.

**Definitions:**

**Blood Pressure (BP) Classification** – BP is defined by four (4) BP reading classifications: Normal, Pre-Hypertensive, First Hypertensive, and Second Hypertensive Readings.

**Recommended BP Follow-Up** – *The Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure* (JNC 7) recommends BP screening intervals, lifestyle modifications and interventions based on the current BP reading as listed in the “Recommended Blood Pressure Follow-Up Interventions” listed below.

**Recommended Lifestyle Modifications** – The JNC 7 report outlines lifestyle modifications which must include one or more of the following as indicated:
- Weight Reduction
- Dietary Approaches to Stop Hypertension (DASH) Eating Plan
- Dietary Sodium Restriction
- Increased Physical Activity
- Moderation in alcohol (ETOH) Consumption

**Second Hypertensive Reading:**
Requires a BP reading of Systolic BP ≥ 140 mmHg OR Diastolic BP ≥ 90 mmHg during the current encounter AND a most recent BP reading within the last 12 months Systolic BP ≥ 140 mmHg OR Diastolic BP ≥ 90 mmHg.

**Second Hypertensive BP Reading Interventions:**
The JNC 7 report outlines BP follow-up interventions for a second hypertensive BP reading and must include one or more of the following as indicated:
- Anti-Hypertensive Pharmacologic Therapy
- Laboratory Tests
- Electrocardiogram (ECG)

**Recommended Blood Pressure Follow-up Interventions:**
- **Normal BP:** No follow-up required for Systolic BP <120 mmHg AND Diastolic BP < 80 mmHg
- **Pre-Hypertensive BP:** Follow-up with rescreen every year with systolic BP of 120 – 139 mmHg OR diastolic BP of 80 – 89 mmHg AND recommended lifestyle modifications OR referral to Alternate/Primary Care Provider
- **First Hypertensive BP Reading:** Patients with one elevated reading of systolic BP >= 140 mmHg OR diastolic BP >= 90 mmHg:
  - Follow-up with rescreen > 1 day and < 4 weeks AND recommend lifestyle modifications OR referral to Alternative/Primary Care Provider
- **Second Hypertensive BP Reading:** Patients with second elevated reading of systolic BP >= 140 mmHg OR diastolic BP >= 90 mmHg:
  - Follow-up with Recommended lifestyle modifications AND one or more of the Second Hypertensive Reading Interventions OR referral to Alternative/Primary Care Provider
### Table 17 - Recommended Blood Pressure Follow-Up

<table>
<thead>
<tr>
<th>BP Classification</th>
<th>Systolic BP mmHg</th>
<th>Diastolic BP mmHg</th>
<th>Recommended Follow-Up (must include all indicated actions for each BP Classification)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal BP Reading</td>
<td>&lt; 120 AND &lt; 80</td>
<td></td>
<td>• No Follow-Up required</td>
</tr>
<tr>
<td>Pre-Hypertensive BP Reading</td>
<td>≥ 120 AND ≤ 139</td>
<td>≥ 80 AND ≤ 89</td>
<td>• Rescreen BP within a minimum of 1 year AND Recommend Lifestyle Modifications OR Referral to Alternative/Primary Care Provider</td>
</tr>
<tr>
<td>First Hypertensive BP Reading</td>
<td>≥ 140 OR ≥ 90</td>
<td></td>
<td>• Rescreen BP within a minimum of &gt; 1 day and &lt; 4 weeks AND Recommend Lifestyle Modifications OR Referral to Alternative/Primary Care Provider</td>
</tr>
<tr>
<td>Second Hypertensive BP Reading</td>
<td>≥ 140 OR ≥ 90</td>
<td></td>
<td>• Recommend Lifestyle Modifications AND 1 or more of the Second Hypertensive Reading Interventions (see definitions) OR Referral to Alternative/Primary Care Provider</td>
</tr>
</tbody>
</table>

**Not Eligible** – A patient is not eligible if one or more of the following reason(s) are documented:
- Patient has an active diagnosis of hypertension
- Patient refuses to participate (either BP measurement or follow-up)
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status. This may include but is not limited to severely elevated BP when immediate medical treatment is indicated

**NUMERATOR NOTE:** Although the recommended screening interval for a normal BP reading is every 2 years, to meet the intent of this measure, BP screening and follow-up must be performed once per measurement period. For patients with Normal blood pressure a follow-up plan is not required.

**Numerator Options:**

- **Performance Met:**
  - Normal blood pressure reading documented, follow-up not required (G8783)
- **Performance Met:**
  - Pre-Hypertensive or Hypertensive blood pressure reading documented, AND the indicated follow-up is documented (G8950)
- **Other Performance Exclusion:**
  - Patient not eligible (e.g. documentation the patient is not eligible due to active diagnosis of hypertension, patient refuses, urgent or emergent situation, documentation the patient is not eligible (G8784)
- **Performance Not Met:**
  - Blood pressure reading not documented, reason not given (G8785)
**Performance Not Met:** Pre-Hypertensive or Hypertensive blood pressure reading documented, indicated follow-up not documented, reason not given (G8952)

**DIABETIC RETINOPATHY MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS**

**MEASURE #1 – DIABETES: HEMOGLOBIN A1C POOR CONTROL**

**RATIONALE:**
Diabetes mellitus (diabetes) is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or utilize the hormone insulin. It is recognized as a leading cause of death and disability in the U.S. and is highly underreported as a cause of death. Diabetes may cause life-threatening, life-ending or life-altering complications, including poor circulation, nerve damage or neuropathy in the feet and eventual amputation. Nearly 60-70 percent of diabetics suffer from mild or severe nervous system damage (American Diabetes Association 2009).

Randomized clinical trials have demonstrated that improved glycemic control, as evidenced by reduced levels of glycohemoglobin, correlates with a reduction in the development of microvascular complications in both Type 1 and Type 2 diabetes (Diabetes Control and Complications Trial Research Group 1993; Ohkubo 1995). In particular, the Diabetes Control and Complications Trial (DCCT) showed that for patients with Type 1 diabetes mellitus, important clinical outcomes such as retinopathy (an important precursor to blindness), nephropathy (which precedes renal failure), and neuropathy (a significant cause of foot ulcers and amputation in patients with diabetes) are directly related to level of glycemic control (Diabetes Control and Complications Trial Research Group 1993). Similar reductions in complications were noted in a smaller study of intensive therapy of patients with Type 2 diabetes by Ohkubo and co-workers, which was conducted in the Japanese population (Ohkubo et al., 1995).

**CLINICAL RECOMMENDATION STATEMENTS:**

**American Geriatrics Society (Brown et al. 2003):**

For frail older adults, persons with life expectancy of less than 5 years, and others in whom the risks of intensive glycemic control appear to outweigh the benefits, a less stringent target such as 8% is appropriate. (Quality of Evidence: Level III; Strength of Evidence: Grade B)

**American Diabetes Association (2009):**

Lowering A1c to below or around 7% has been shown to reduce microvascular and neuropathic complications of type 1 and type 2 diabetes. Therefore, for microvascular disease prevention, the A1c goal for non-pregnant adults in general is < 7%. (Level of Evidence: A)

In type 1 and type 2 diabetes, randomized controlled trials of intensive versus standard glycemic control have not shown a significant reduction in CVD outcomes during the randomized portion of the trials. Long-term follow-up of the Diabetes Control and Complications Trial (DCCT) and UK Prospective Diabetes Study (UKPDS) cohorts suggests that treatment to A1C targets below or around 7% in the years soon after the diagnosis of diabetes is associated with long-term reduction in risk of macrovascular disease. Until more evidence becomes available, the general goal of < 7% appears reasonable for many adults for macrovascular risk reduction. (Level of Evidence: B)

Subgroup analyses of clinical trials such as the DCCT and UKPDS and the microvascular evidence from the Action in Diabetes and Vascular Disease: Preterax and Diamicron MR Controlled Evaluation (ADVANCE) trial suggest a small but incremental benefit in microvascular outcomes with A1c values closer to normal. Therefore, for selected individual patients, providers might reasonably suggest even lower A1c goals than the general goal of < 7%, if this can be achieved without significant hypoglycemia or other adverse effects of treatment. Such patients might include those with short duration of diabetes, long life expectancy, and no significant CVD. (Level of Evidence: B)
Conversely, less stringent A1c goals than the general goal of < 7% may be appropriate for patients with a history of severe hypoglycemia, limited life expectancy, advanced microvascular or macrovascular complications, and extensive comorbid conditions and those with longstanding diabetes in whom the general goal is difficult to attain despite diabetes self-management education, appropriate glucose monitoring, and effective doses of multiple glucose lowering agents including insulin. (Level of Evidence: C)

**MEASURE #18 - DIABETIC RETINOPATHY: DOCUMENTATION OF PRESENCE OR ABSENCE OF MACULAR EDEMA AND LEVEL OF SEVERITY OF RETINOPATHY**

**RATIONALE:**
Diabetic retinopathy is a leading cause of new cases of legal blindness among working-age Americans and represents a leading cause of blindness in this age group worldwide. (Klein, 2007). In 2005-2008, the estimated prevalence of diabetic retinopathy and vision-threatening diabetic retinopathy was 28.5 percent among persons with diabetes aged 40 years and older (Zhang, 2010). Approximately 1.5% of adults with diabetes had proliferative diabetic retinopathy and 2.7% had clinically significant macular edema (Zhang, 2010).

Several level 1 RCT studies demonstrate the ability of timely treatment to reduce the rate and severity of vision loss from diabetes (Diabetic Retinopathy Study -- DRS, Early Treatment Diabetic Retinopathy Study -- ETDRS). Necessary examination prerequisites to applying the study results are that the presence and severity of both peripheral diabetic retinopathy and macular edema be accurately documented. In the RAND chronic disease quality project, while administrative data indicated that roughly half of the patients had an eye exam in the recommended time period, chart review data indicated that only 19% had documented evidence of a dilated examination (McGlynn, 2003). Thus, ensuring timely treatment that could prevent 95% of the blindness due to diabetes requires the performance and documentation of key examination parameters. The documented level of severity of retinopathy and the documented presence or absence of macular edema assists with the on-going plan of care for the patient with diabetic retinopathy.

**CLINICAL RECOMMENDATION STATEMENTS:**
Because treatment is effective in reducing the risk of visual loss, detailed examination is indicated to assess for the following features that often lead to visual impairment: presence of macular edema, optic nerve neovascularization and/or neovascularization elsewhere, signs of severe NPDR (extensive retinal hemorrhages/microaneurysms, venous beading, and IRMA), and vitreous or preretinal hemorrhage. (Good evidence; Strong recommendation) (AAO, 2014)

**MEASURE #19 – DIABETIC RETINOPATHY: COMMUNICATION WITH THE PHYSICIAN MANAGING ONGOING DIABETES CARE**

**RATIONALE:**
The primary care physician that manages the ongoing care of the patient with diabetes should be aware of the patient’s dilated eye examination and severity of retinopathy to manage the ongoing diabetes care. Such communication is important in assisting the physician to better manage the diabetes. Several studies have shown that better management of diabetes is directly related to lower rates of development of diabetic eye disease (Diabetes Control and Complications Trial – DCCT, UK Prospective Diabetes Study – UKPDS).

**CLINICAL RECOMMENDATION STATEMENTS:**
Ophthalmologists should communicate the ophthalmologic findings and level of retinopathy with the primary care physician as well as the need for optimizing metabolic control. (Good evidence; Strong recommendation) (AAO, 2014)

**MEASURE #117 – DIABETES: EYE EXAM**

**RATIONALE:**
Diabetes mellitus (diabetes) is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or utilize the hormone insulin. It is recognized as a leading cause of death and disability in the U.S. and is highly underreported as a cause of death. Diabetes of either type may cause life-threatening, life-
ending or life-altering complications, including glaucoma and blindness. Diabetic retinopathy is the most common diabetic eye disease and causes 21,000–24,000 new cases of blindness annually. The consensus among established clinical guidelines is that patients with both types of diabetes should have an initial dilated and comprehensive eye exam soon after diagnosis. Guidelines also recommend consultation with an ophthalmologist for treatment options if a patient has any level of macular edema or diabetic retinopathy (proliferative and nonproliferative) (American Diabetes Association 2009).

**CLINICAL RECOMMENDATION STATEMENTS:**
American Diabetes Association (ADA) (2009):

- Adults and children aged 10 years or older with type 1 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist within 5 years after the onset of diabetes. (B recommendation)
- Patients with type 2 diabetes should have an initial dilated and comprehensive eye examination by an ophthalmologist or optometrist shortly after the diagnosis of diabetes. (B recommendation)
- Subsequent examinations for type 1 and type 2 diabetic patients should be repeated annually by an ophthalmologist or optometrist. Less frequent exams (every 2–3 years) may be considered following one or more normal eye exams. Examinations will be required more frequently if retinopathy is progressing. (B recommendation)
- Women with preexisting diabetes who are planning pregnancy or who have become pregnant should have a comprehensive eye examination and be counseled on the risk of development and/or progression of diabetic retinopathy. (B recommendation)
- Eye examination should occur in the first trimester with close follow-up throughout pregnancy and for 1 year postpartum. (B recommendation)
- Promptly refer patients with any level of macular edema, severe nonproliferative diabetic retinopathy (NPDR), or any proliferative diabetic retinopathy (PDR) to an ophthalmologist who is knowledgeable and experienced in the management and treatment of diabetic retinopathy. (A recommendation)
- Laser photocoagulation therapy is indicated to reduce the risk of vision loss in patients with high-risk PDR, clinically significant macular edema, and in some cases of severe NPDR. (A recommendation)
- The presence of retinopathy is not a contraindication to aspirin therapy for cardioprotection, as this therapy does not increase the risk of retinal hemorrhage. (A recommendation)

American Geriatric Society (AGS) (Brown et al. 2003): The older adult who has new-onset DM should have an initial screening dilated-eye examination performed by an eye-care specialist with funduscopy training. (Level I, Grade B)

**MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD RATIONALE:**
In the American Medical Association’s (AMA) *Physician’s Role in Medication Reconciliation* (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), “different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple medications. When care is not well coordinated and some providers do not know about all of a patient’s medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing.”
In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.

Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication
information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**
The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA's published report, The Physician’s Role in Medication Reconciliation, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

**MEASURE #226 – PREVENTIVE CARE AND SCREENING: TOBACCO USE: SCREENING AND CESSATION INTERVENTION RATIONALE:**
This measure is intended to promote adult tobacco screening and tobacco cessation interventions for those who use tobacco products. There is good evidence that tobacco screening and brief cessation intervention (including counseling and/or pharmacotherapy) is successful in helping tobacco users quit. Tobacco users who are able to stop smoking lower their risk for heart disease, lung disease, and stroke.

**CLINICAL RECOMMENDATION STATEMENTS:**
The following evidence statements are quoted verbatim from the referenced clinical guidelines:

All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)
Minimal interventions lasting less than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The combination of counseling and medication is more effective for smoking cessation than either medication or counseling alone. Therefore, whenever feasible and appropriate, both counseling and medication should be provided to patients trying to quit smoking. (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (ie, pregnant women, smokeless tobacco users, light smokers, and adolescents). (Strength of Evidence = A) (U.S. Department of Health and Human Services. Public Health Service, 2008)

The USPSTF recommends that clinicians ask all adults about tobacco use and provide tobacco cessation interventions for those who use tobacco products. (A Recommendation) (U.S. Preventive Services Task Force, 2009)

**MEASURE #317 - PREVENTIVE CARE AND SCREENING: SCREENING FOR HIGH BLOOD PRESSURE AND FOLLOW-UP DOCUMENTED**

**RATIONALE:**
Hypertension is a prevalent condition that affects approximately 66.9 million people in the United States. It is estimated that about 20-40% of the adult population has hypertension; the majority of people over age 65 have a hypertension diagnosis (Appleton SL, et. al., 2012 and Luehr D, et. al., 2012). Winter (2013) noted that 1 in 3 American adults have hypertension and the lifetime risk of developing hypertension is 90% (Winter KH, et. al., 2013). The African American population or non-Hispanic Blacks, the elderly, diabetics and those with chronic kidney disease are at increased risk of stroke, myocardial infarction and renal disease. Non-Hispanic Blacks have the highest prevalence at 38.6% (Winter KH, et. al., 2013). Hypertension is a major risk factor for ischemic heart disease, left ventricular hypertrophy, renal failure, stroke and dementia (Luehr D, et. al., 2012).

Hypertension is the most common reason for adult office visits other than pregnancy. Garrison (2013) stated that in 2007, 42 million ambulatory visits were attributed to hypertension (Garrison GM and Oberhelman S, 2013). It also has the highest utilization of prescription drugs. Numerous resources and treatment options are available, yet only about 40-50% of the hypertensive patients have their blood pressure under control (<140/90) (Appleton SL, et. al., 2012, Luehr D, et. al., 2012). In addition to medication non-compliance, poor outcomes are also attributed to poor adherence to lifestyle changes such as a low-sodium diet, weight loss, increased exercise and limiting alcohol intake. Many adults find it difficult to continue medications and lifestyle changes when they are asymptomatic. Symptoms of elevated blood pressure usually do not occur until secondary problems arise such as with vascular diseases (myocardial infarction, stroke, heart failure and renal insufficiency) (Luehr D, et. al., 2012).

Appropriate follow-up after blood pressure measurement is a pivotal component in preventing the progression of hypertension and the development of heart disease. Detection of marginally or fully elevated blood pressure by a specialty clinician warrants referral to a provider familiar with the management of hypertension and prehypertension. The 2010 ACCF/AHA Guideline for the Assessment of Cardiovascular Risk in Asymptomatic Adults continues to support using a global risk score such as the Framingham Risk Score, to assess risk of coronary heart disease (CHD) in all asymptomatic adults (Greenland P, et. al., 2010). Lifestyle modifications have demonstrated effectiveness in lowering blood pressure (JNC 7, 2003). The synergistic effect of several lifestyle modifications results in greater benefits than a single modification alone. Baseline diagnostic/laboratory testing establishes if a co-existing underlying condition is the etiology of hypertension and evaluates if end organ damage from hypertension has already occurred. Landmark trials such as ALLHAT have repeatedly proven the efficacy of pharmacologic therapy to control blood pressure and reduce the complications of hypertension. Follow-up intervals based on blood pressure control have been established by the JNC 7 and the USPSTF.
CLINICAL RECOMMENDATION STATEMENTS:
The U.S. Preventive Services Task Force (USPSTF) recommends screening for high blood pressure in adults age 18 years and older. This is a grade A recommendation.
MULTIPLE CHRONIC CONDITIONS MEASURES GROUP OVERVIEW

2016 PQRS OPTIONS FOR MEASURES GROUPS:

2016 PQRS MEASURES IN MULTIPLE CHRONIC CONDITIONS MEASURES GROUP:

#47 Care Plan
#110 Preventive Care and Screening: Influenza Immunization
#128 Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan
#130 Documentation of Current Medications in the Medical Record
#131 Pain Assessment and Follow-Up
#134 Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan
#154 Falls: Risk Assessment
#155 Falls: Plan of Care
#238 Use of High-Risk Medications in the Elderly

INSTRUCTIONS FOR REPORTING:

- It is not necessary to submit the measures group-specific intent G-code for registry-based submissions. However, the measures group-specific intent G-code has been created for registry only measures groups for use by registries that utilize claims data.

G9669: I intend to report the Multiple Chronic Conditions Measures Group

- Report the patient sample method:
  
  20 Patient Sample Method via registries: 20 unique patients (a majority of which must be Medicare Part B FFS patients) meeting patient sample criteria for the measures group during the reporting period (January 1 through December 31, 2016).

- Patient sample criteria for the Multiple Chronic Conditions Measures Group are patients aged 66 years and older with at least of the two conditions as listed in the Chronic Conditions Data Warehouse (CCW) which can be accessed at Chronic Conditions Data Warehouse (CCW) accompanied by a specific patient encounter:

One of the following patient encounter codes: 99487, 99490

For purposes of the 2016 Multiple Chronic Conditions Measures Group submission of specific diagnosis codes are not required.

- To satisfactorily report the Multiple Chronic Conditions Measures Group requires reporting a numerator option on all applicable measures, for each patient within the eligible professional’s patient sample, a minimum of once during the reporting period.

- Measure #110 only needs to be reported a minimum of once during the reporting period when the patient’s visit included in the patient sample population is between January and March for the 2015-2016 influenza season OR between October and December for the 2016-2017 influenza season. When the patient’s office visit is between April and September, Measure #110 is not applicable and will not affect the eligible provider’s reporting or performance rate.

- Measure #128 does not need to be reported (is not applicable) if the patient is considered not eligible for BMI calculation or follow-up plan – A patient is not eligible if one or more of the following reasons are documented:
  
  - Patient is receiving palliative care
  - Patient is pregnant
• Patient refuses BMI measurement (refuses height and/or weight)
• Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
• Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

• When reporting measure #131, the documented follow-up plan must be related to the presence of pain, example: “Patient referred to pain management specialist for back pain” or “Return in two weeks for reassessment of pain”.
• Measure #134 does not need to be reported (is not applicable) if the patient has an active diagnosis of Depression or a diagnosed Bipolar Disorder.
• Measure #155 only needs to be reported when patients are identified in Measure #154 as having a falls risk assessment which indicates the patient has documentation of two or more falls in the past year or any fall with injury in the past year (1100F).

• Instructions for qualifying numerator option reporting for each of the measures within the Multiple Chronic Conditions Measures Group are displayed on the next several pages. The following composite Quality Data Code (QDC) has been created for registries that utilize claims data. This QDC may be reported in lieu of individual QDCs when all quality clinical actions for all applicable measures within the group have been performed.

   Composite QDC G9670: All quality actions for the applicable measures in the Multiple Chronic Conditions Measures Group have been performed for this patient

• This measures group contains one or more inverse measures. An inverse measure is a measure that represents a poor clinical quality action as meeting performance for the measure. For these measures, a lower performance rate indicates a higher quality of clinical care. Composite codes for measures groups that contain inverse measures are only utilized when the appropriate quality clinical care is given.

• The composite code for this measures group may be reported when codes in the summary table below are applicable for reporting of each measure within the measures group.

Table 17 - QDC Options

<table>
<thead>
<tr>
<th>Measure</th>
<th>#47</th>
<th>#110</th>
<th>#128</th>
<th>#130</th>
<th>#131</th>
<th>#134</th>
<th>#154</th>
<th>#155</th>
<th>#238*</th>
</tr>
</thead>
<tbody>
<tr>
<td>QDC options for acceptable use of the composite QDC</td>
<td>1123F or 1124F</td>
<td>G8482</td>
<td>G8420 or G8417 or G8418</td>
<td>G8427</td>
<td>G8730 or G8731</td>
<td>G8431 or G8510</td>
<td>3288F and 1100F</td>
<td>0518F</td>
<td>G9366</td>
</tr>
</tbody>
</table>

*Indicates an inverse measure.

• Measure Group Reporting Calculations:
Measures groups containing a measure with a 0% performance rate will not be counted as satisfactorily reporting the measures group. The recommended clinical quality action must be performed on at least one patient for each applicable measure within the measures group reported by the eligible professional.
Performance exclusion QDCs are not counted in the performance denominator. If the eligible professional submits all performance exclusion QDCs, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

If a measure within a measures group is not applicable to a patient, the patient would not be counted in the performance denominator for that measure (e.g., Preventive Care Measures Group - Measure #39: Screening for Osteoporosis for Women Aged 65-85 Years of Age would not be applicable to male patients according to the patient sample criteria). If the measure is not applicable for all patients within the sample, the performance rate would be 0/0 (null) and would be considered satisfactorily reporting.

When a lower rate indicates better performance, such as Measure #238, a 0% performance rate will be counted as satisfactorily reporting (100% performance rate would not be considered satisfactorily reporting).

- **NOTE:** The detailed instructions in this specification apply exclusively to the reporting and analysis of the included measures under the measures group option.
Measure #47 (NQF 0326): Care Plan -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of patients aged 65 years and older who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

NUMERATOR:
Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advance care plan was discussed but patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.

Numerator Instructions: If patient’s cultural and/or spiritual beliefs preclude a discussion of advance care planning, report 1124F.

Definition:
Documentation that Patient did not Wish or was not able to Name a Surrogate Decision Maker or Provide an Advance Care Plan – May also include, as appropriate, the following:

- That the patient's cultural and/or spiritual beliefs preclude a discussion of advance care planning, as it would be viewed as harmful to the patient's beliefs and thus harmful to the physician-patient relationship.

NUMERATOR NOTE: The CPT Category II codes used for this measure indicate: Advance Care Planning was discussed and documented. The act of using the Category II codes on a claim (or equivalent medical record documentation) indicates the provider confirmed that the Advance Care Plan was in the medical record (that is, at the point in time the code was assigned, the Advance Care Plan in the medical record was valid) or that advance care planning was discussed. The codes (or equivalent medical record documentation) are required annually to ensure that the provider either confirms annually that the plan in the medical record is still appropriate or starts a new discussion.

The provider does not need to review the Advance Care Plan annually with the patient to meet the numerator criteria; documentation of a previously developed advanced care plan that is still valid in the medical record meets numerator criteria.

Numerator Options:
Performance Met: Advance Care Planning discussed and documented; advance care plan or surrogate decision maker documented in the medical record (1123F)

OR

Performance Met: Advance Care Planning discussed and documented in the medical record; patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan (1124F)

OR

Performance Not Met: Advance care planning not documented, reason not otherwise specified (1123F with 8P)
Measure #110 (NQF 0041): Preventive Care and Screening: Influenza Immunization -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 6 months and older seen for a visit between October 1 and March 31 who received an influenza immunization OR who reported previous receipt of an influenza immunization

NUMERATOR:
Patients who received an influenza immunization OR who reported previous receipt of an influenza immunization

Numerator Instructions:
- If reporting this measure between January 1, 2016 and March 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2015 or January, February, and March of 2016 for the flu season ending March 31, 2016.
- If reporting this measure between October 1, 2016 and December 31, 2016, quality-data code G8482 should be reported when the influenza immunization is administered to the patient during the months of August, September, October, November, and December of 2016 for the flu season ending March 31, 2017.
- Influenza immunizations administered during the month of August or September of a given flu season (either 2015-2016 flu season OR 2016-2017 flu season) can be reported when a visit occurs during the flu season (October 1 - March 31). In these cases, G8482 should be reported.

Definition:
Previous Receipt - Receipt of the current season’s influenza immunization from another provider OR from same provider prior to the visit to which the measure is applied (typically, prior vaccination would include influenza vaccine given since August 1st).

Numerator NOTE: The numerator for this measure can be met by reporting either administration of an influenza vaccination or that the patient reported previous receipt of the current season’s influenza immunization. If the performance of the numerator is not met, a clinician can report a valid performance exclusion for having not administered an influenza vaccination. For clinicians reporting a performance exclusion for this measure, there should be a clear rationale and documented reason for not administering an influenza immunization if the patient did not indicate previous receipt, which could include a medical reason (e.g., patient allergy), patient reason (e.g., patient declined), or system reason (e.g., vaccination not available). The system reason should be indicated only for cases of disruption or shortage of influenza vaccination supply.

Numerator Options:
Performance Met: Influenza immunization administered or previously received (G8482)

OR

Other Performance Exclusion: Influenza immunization was not administered for reasons documented by clinician (e.g., patient allergy or other medical reasons, patient declined or other patient reasons, vaccine not available or other system reasons) (G8483)

OR

Performance Not Met: Influenza immunization was not administered, reason not given (G8484)
**Measure #128 (NQF 0421): Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health**

**DESCRIPTION:**
Percentage of patients aged 18 years and older with a BMI documented during the current encounter or during the previous six months AND with a BMI outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter.

**Normal Parameters:**
- Age 65 years and older BMI ≥ 23 and < 30 kg/m2
- Age 18 – 64 years BMI ≥ 18.5 and < 25 kg/m2

**NUMERATOR:**
Patients with a documented BMI during the encounter or during the previous six months, AND when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous six months of the current encounter.

**Numerator Instructions:**
- **Height and Weight** – An eligible professional or their staff is required to measure both height and weight. Both height and weight must be measured within six months of the current encounter and may be obtained from separate encounters. Self-reported values cannot be used.
- **Follow-Up Plan** – If the most recent documented BMI is outside of normal parameters, then a follow-up plan is documented during the encounter or during the previous six months of the current encounter. The documented follow-up plan must be based on the most recent documented BMI outside of normal parameters, example: “Patient referred to nutrition counseling for BMI above normal parameters.” (See Definitions for examples of a follow-up plan treatments)
- **Performance Met for G8417 & G8418**
  - If the provider documents a BMI and a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter, the provider documents a follow-up plan at the current visit OR
  - If the patient has a documented BMI within the previous six months of the current encounter AND the patient has a documented follow-up plan for a BMI outside normal parameters within the previous six months of the current visit

**Definitions:**
- **BMI** – Body mass index (BMI), is a number calculated using the Quetelet index: weight divided by height squared (W/H2) and is commonly used to classify weight categories. BMI can be calculated using:
  - Metric Units: BMI = Weight (kg) / (Height (m) x Height (m))
  - English Units: BMI = Weight (lbs) / (Height (in) x Height (in)) x 703

**Follow-Up Plan** – Proposed outline of treatment to be conducted as a result of a BMI out of normal parameters. A follow-up plan may include but is not limited to:
- Documentation of education
- Referral (e.g., a registered dietitian/nutritionist, occupational therapist, physical therapist, primary care provider, exercise physiologist, mental health professional, or surgeon)
- Pharmacological interventions
- Dietary supplements
• Exercise counseling
• Nutrition counseling

Not Eligible for BMI Calculation or Follow-Up Plan – A patient is not eligible if one or more of the following reasons are documented:
• Patient is receiving palliative care
• Patient is pregnant
• Patient refuses BMI measurement (refuses height and/or weight)
• Any other reason documented in the medical record by the provider why BMI measurement was not appropriate
• Patient is in an urgent or emergent medical situation where time is of the essence, and to delay treatment would jeopardize the patient’s health status

Numerator Options:
Performance Met: BMI is documented within normal parameters and no follow-up plan is required (G8420)
OR
Performance Met: BMI is documented above normal parameters and a follow-up plan is documented (G8417)
OR
Performance Met: BMI is documented below normal parameters and a follow-up plan is documented (G8418)
OR
Performance Not Met: BMI not documented and no reason is given (G8421)
OR
Performance Not Met: BMI documented outside normal parameters, no follow-up plan documented, no reason given (G8419)
**Measure #130 (NQF 0419): Documentation of Current Medications in the Medical Record --**  
National Quality Strategy Domain: Patient Safety

**DESCRIPTION:**  
Percentage of visits for patients aged 18 years and older for which the eligible professional attests to documenting a list of current medications using all immediate resources available on the date of the encounter. This list **must** include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements **AND must** contain the medications’ name, dosage, frequency and route of administration.

**NUMERATOR:**  
Eligible professional attests to documenting, updating or reviewing a patient’s current medications using all immediate resources available on the date of encounter. This list **must** include ALL known prescriptions, over-the-counters, herbals, and vitamin/mineral/dietary (nutritional) supplements **AND must** contain the medications’ name, dosages, frequency and route of administration.

**Definitions:**  
**Current Medications** – Medications the patient is presently taking including all prescriptions, over-the-counters, herbals and vitamin/mineral/dietary (nutritional) supplements with each medication’s name, dosage, frequency and administered route.  
**Route** - Documentation of the way the medication enters the body (some examples include but are not limited to: oral, sublingual, subcutaneous injections, and/or topical).  
**Not Eligible** - A patient is not eligible if the following reason is documented:  
- Patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient’s health status.

**NUMERATOR NOTE:** The eligible professional must document in the medical record they obtained, updated, or reviewed a medication list on the date of the encounter. Eligible professionals reporting this measure may document medication information received from the patient, authorized representative(s), caregiver(s) or other available healthcare resources. G8427 should be reported if the eligible professional documented that the patient is not currently taking any medications.

**Numerator Options:**

**Performance Met:**  
Eligible professional attests to documenting in the medical record they obtained, updated, or reviewed the patient’s current medications (G8427)

**Other Performance Exclusion:**  
Eligible professional attests to documenting in the medical record the patient is not eligible for a current list of medications being obtained, updated, or reviewed by the eligible professional (G8430)

**Performance Not Met:**  
Current list of medications not documented as obtained, updated, or reviewed by the eligible professional, reason not given (G8428)
Measure #131 (NQF 0420): Pain Assessment and Follow-Up -- National Quality Strategy Domain: Communication and Care Coordination

DESCRIPTION:
Percentage of visits for patients aged 18 years and older with documentation of a pain assessment using a standardized tool(s) on each visit AND documentation of a follow-up plan when pain is present

NUMERATOR:
Patient visits with a documented pain assessment using a standardized tool(s) AND documentation of a follow-up plan when pain is present

Definitions:

Pain Assessment - Documentation of a clinical assessment for the presence or absence of pain using a standardized tool is required. A multi-dimensional clinical assessment of pain using a standardized tool may include characteristics of pain; such as: location, intensity, description, and onset/duration.

Standardized Tool – An assessment tool that has been appropriately normed and validated for the population in which it is used. Examples of tools for pain assessment, include, but are not limited to: Brief Pain Inventory (BPI), Faces Pain Scale (FPS), McGill Pain Questionnaire (MPQ), Multidimensional Pain Inventory (MPI), Neuropathic Pain Scale (NPS), Numeric Rating Scale (NRS), Oswestry Disability Index (ODI), Roland Morris Disability Questionnaire (RMDQ), Verbal Descriptor Scale (VDS), Verbal Numeric Rating Scale (VNRS) and Visual Analog Scale (VAS).

Follow-Up Plan – A documented outline of care for a positive pain assessment is required. This must include a planned follow-up appointment or a referral, a notification to other care providers as applicable OR indicate the initial treatment plan is still in effect. These plans may include pharmacologic and/or educational interventions.

Not Eligible – A patient is not eligible if one or more of the following reason(s) is documented:

- Severe mental and/or physical incapacity where the person is unable to express himself/herself in a manner understood by others. For example, cases where pain cannot be accurately assessed through use of nationally recognized standardized pain assessment tools
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient’s health status

NUMERATOR NOTE: The standardized tool used to assess the patient’s pain must be documented in the medical record (exception: A provider may use a fraction such as 5/10 for Numeric Rating Scale without documenting this actual tool name when assessing pain for intensity).

Numerator Options:

Performance Met:
- Pain assessment documented as positive using a standardized tool AND a follow-up plan is documented (G8730)

OR
Performance Met:
- Pain assessment using a standardized tool is documented as negative, no follow-up plan required (G8731)

OR
Other Performance Exclusion:
- Pain assessment NOT documented as being performed, documentation the patient is not eligible for a pain assessment using a standardized tool (G8442)
OR
Other Performance Exclusion:

Pain assessment documented as positive, follow-up plan not documented, documentation the patient is not eligible (G8939)

OR

Performance Not Met:

No documentation of pain assessment, reason not given (G8732)

OR

Performance Not Met:

Pain assessment documented as positive using a standardized tool, follow-up plan not documented, reason not given (G8509)
Measure #134 (NQF 0418): Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan -- National Quality Strategy Domain: Community/Population Health

DESCRIPTION:
Percentage of patients aged 12 years and older screened for clinical depression on the date of the encounter using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen.

NUMERATOR:
Patients screened for clinical depression on the date of the encounter using an age appropriate standardized tool AND, if positive, a follow-up plan is documented on the date of the positive screen.

**Numerator Instructions:** The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record. The depression screening must be reviewed and addressed in the office of the provider filing the code on the date of the encounter.

**Definitions:**

- **Screening** – Completion of a clinical or diagnostic tool used to identify people at risk of developing or having a certain disease or condition, even in the absence of symptoms.
- **Standardized Depression Screening Tool** – A normalized and validated depression screening tool developed for the patient population in which it is being utilized. The name of the age appropriate standardized depression screening tool utilized must be documented in the medical record.

Examples of depression screening tools include but are not limited to:

- **Adolescent Screening Tools (12-17 years)**
  - Patient Health Questionnaire for Adolescents (PHQ-A), Beck Depression Inventory-Primary Care Version (BDI-PC), Mood Feeling Questionnaire (MFQ), Center for Epidemiologic Studies Depression Scale (CES-D), and PRIME MD-PHQ2

- **Adult Screening Tools (18 years and older)**
  - Patient Health Questionnaire (PHQ-9), Beck Depression Inventory (BDI or BDI-II), Center for Epidemiologic Studies Depression Scale (CES-D), Depression Scale (DEPS), Duke Anxiety-Depression Scale (DADS), Geriatric Depression Scale (GDS), Cornell Scale Screening, and PRIME MD-PHQ2

**Follow-Up Plan** – Documented follow-up for a positive depression screening must include one or more of the following:

- Additional evaluation for depression
- Suicide Risk Assessment
- Referral to a practitioner who is qualified to diagnose and treat depression
- Pharmacological interventions
- Other interventions or follow-up for the diagnosis or treatment of depression

**Not Eligible** – A patient is not eligible if one or more of the following conditions are documented:

- Patient refuses to participate
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient's health status
- Situations where the patient's functional capacity or motivation to improve may impact the accuracy of results of standardized depression assessment tools. For example: certain court appointed cases or cases of delirium
- Patient has an active diagnosis of Depression
- Patient has a diagnosed Bipolar Disorder

**NUMERATOR NOTE:** The follow-up plan must be related to a positive depression screening, example: “Patient referred for psychiatric evaluation due to positive depression screening.”
Numerator Options:

Performance Met: Screening for clinical depression is documented as being positive AND a follow-up plan is documented (G8431)

OR

Performance Met: Screening for clinical depression is documented as negative, a follow-up plan is not required (G8510)

OR

Other Performance Exclusion: Screening for clinical depression not documented, documentation stating the patient is not eligible (G8433)

OR

Other Performance Exclusion: Screening for clinical depression documented as positive, a follow-up plan not documented, documentation stating the patient is not eligible (G8940)

OR

Performance Not Met: Clinical depression screening not documented, reason not given (G8432)

OR

Performance Not Met: Screening for clinical depression documented as positive, follow-up plan not documented, reason not given (G8511)

DESCRIPTION:
Percentage of patients aged 65 years and older with a history of falls who had a risk assessment for falls completed within 12 months

NUMERATOR:
Patients who had a risk assessment for falls completed within 12 months

Numerator Instructions: All components do not need to be completed during one patient visit, but should be documented in the medical record as having been performed within the past 12 months.

Definitions:
Fall – A sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of sudden onset of paralysis, epileptic seizure, or overwhelming external force.
Risk Assessment – Comprised of balance/gait AND one or more of the following: postural blood pressure, vision, home fall hazards, and documentation on whether medications are a contributing factor or not to falls within the past 12 months.
Balance/gait Assessment – Medical record must include documentation of observed transfer and walking or use of a standardized scale (e.g., Get Up & Go, Berg, Tinetti) or documentation of referral for assessment of balance/gait.
Postural blood pressure – Documentation of blood pressure values in supine and then standing positions.
Vision Assessment – Medical record must include documentation that patient is functioning well with vision or not functioning well with vision based on discussion with the patient or use of a standardized scale or assessment tool (e.g., Snellen) or documentation of referral for assessment of vision.
Home fall hazards Assessment – Medical record must include documentation of counseling on home falls hazards or documentation of inquiry of home fall hazards or referral for evaluation of home fall hazards.
Medications Assessment – Medical record must include documentation of whether the patient's current medications may or may not contribute to falls.

Numerator NOTE: History of falls is defined as 2 or more falls in the past year or any fall with injury in the past year. Documentation of patient reported history of falls is sufficient.

Numerator Options:
Performance Met: Falls risk assessment documented (3288F) AND Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year (1100F)

Medical Performance Exclusion: Documentation of medical reason(s) for not completing a risk assessment for falls (ie, patient is not ambulatory, bed ridden, immobile, confined to chair, wheelchair bound, dependent on helper pushing wheelchair, independent in wheelchair or minimal help in wheelchair) (3288F with 1P)
Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year (1100F)

OR

Other Performance Exclusion:

OR

Other Performance Exclusion:

OR

Performance Not Met:

AND

Patient screened for future fall risk; documentation of no falls in the past year or only one fall without injury in the past year (1101F)

No documentation of falls status (1101F with 8P)

Falls risk assessment not completed, reason not otherwise specified (3288F with 8P)

Patient screened for future fall risk; documentation of two or more falls in the past year or any fall with injury in the past year (1100F)
**Measure #155 (NQF: 0101): Falls: Plan of Care -- National Quality Strategy Domain: Communication and Care Coordination**

**DESCRIPTION:**
Percentage of patients aged 65 years and older with a history of falls who had a plan of care for falls documented within 12 months

**NUMERATOR:**
Patients with a plan of care for falls documented within 12 months

**Numerator Instructions:** All components do not need to be completed during one patient visit, but should be documented in the medical record as having been performed within the past 12 months.

**Definitions:**
- **Plan of Care** – Must include: 1) consideration of vitamin D supplementation AND 2) balance, strength, and gait training.
- **Consideration of Vitamin D Supplementation** – Documentation that vitamin D supplementation was advised or considered or documentation that patient was referred to his/her physician for vitamin D supplementation advice.
- **Balance, Strength, and Gait Training** – Medical record must include: documentation that balance, strength, and gait training/instructions were provided OR referral to an exercise program, which includes at least one of the three components: balance, strength or gait OR referral to physical therapy.
- **Fall** – A sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of sudden onset of paralysis, epileptic seizure, or overwhelming external force.

**Numerator Note:** History of falls is defined as 2 or more falls in the past year or any fall with injury in the past year. Documentation of patient reported history of falls is sufficient.

**Numerator Options:**
- **Performance Met:** Falls plan of care documented (0518F)
- **Medical Performance Exclusion:** Documentation of medical reason(s) for no plan of care for falls (ie, patient is not ambulatory, bed ridden, immobile, confined to chair, wheelchair bound, dependent on helper pushing wheelchair, independent in wheelchair or minimal help in wheelchair) (0518F with 1P)
- **Performance Not Met:** Plan of care not documented, reason not otherwise specified (0518F with 8P)

DESCRIPTION:
Percentage of patients 66 years of age and older who were ordered high-risk medications. Two rates are reported

1) Percentage of patients who were ordered at least one high-risk medication
2) Percentage of patients who were ordered at least two different high-risk medications

For purposes of the Multiple Chronic Care Conditions Measures Group this measure will be calculated with 1 performance rates:

1) Percentage of patients who were ordered at least one high-risk medication

NUMERATOR:
Percentage of patients who were ordered at least one high-risk medication during the measurement period

Numerator Instructions:

INVERSE MEASURE - A lower calculated performance rate for this measure indicates better clinical care or control. The "Performance Not Met" numerator option for this measure is the representation of the better clinical quality or control. Reporting that numerator option will produce a performance rate that trends closer to 0%, as quality increases. For inverse measures a rate of 100% means all of the denominator eligible patients did not receive the appropriate care or were not in proper control, and therefore an inverse measure at 100% does not qualify for reporting purposes, however any reporting rate less than 100% does qualify.

A high-risk medication is identified by either of the following:

- A prescription for medications classified as high risk at any dose and for any duration listed in Table 18
- Prescriptions for medications classified as high risk at any dose with greater than a 90 day cumulative medication duration listed in Table 19

Definitions:

Cumulative Medication Duration - an individual's total number of medication days over a specific period; the period counts multiple prescriptions with gaps in between, but does not count the gaps during which a medication was not dispensed.

To determine the cumulative medication duration, determine first the number of the Medication Days for each prescription in the period: the number of doses divided by the dose frequency per day. Then add the Medication Days for each prescription without counting any days between the prescriptions.

Table 18 - High-Risk Medications at any dose or duration

<table>
<thead>
<tr>
<th>Description</th>
<th>Prescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticholinergics (excludes TCAs), first-generation antihistamines</td>
<td>Brompheniramine, Carbinoxamine, Chlorpheniramine, Clemastine, Cyproheptadine, Dexampheniramine, Dextromethorphan, Diphenhydramine (oral), Doxylamine, Hydroxyzine, Promethazine, Triprolidine</td>
</tr>
<tr>
<td>Description</td>
<td>Prescription</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Anticholinergics (excludes TCAs), anti-Parkinson agents</td>
<td>• Benztropine (oral)</td>
</tr>
<tr>
<td>Antithrombotics</td>
<td>• Dipyridamole, oral short-acting (does not apply to the extended-release combination with aspirin)</td>
</tr>
<tr>
<td>Cardiovascular, alpha agonists, central</td>
<td>• Guanabenz</td>
</tr>
<tr>
<td>Cardiovascular, other</td>
<td>• Disopyramide</td>
</tr>
<tr>
<td>Central nervous system, tertiary TCAs</td>
<td>• Amitriptyline</td>
</tr>
<tr>
<td>Central nervous system, barbiturates</td>
<td>• Amobarbital</td>
</tr>
<tr>
<td>Central nervous system, vasodilators</td>
<td>• Butabarbital</td>
</tr>
<tr>
<td>Central nervous system, other</td>
<td>• Butalbital</td>
</tr>
<tr>
<td>Endocrine system, estrogens with or without progestins; include only oral and topical patch products</td>
<td>• Conjugated estrogen</td>
</tr>
<tr>
<td>Endocrine system, sulfonylureas, long-duration</td>
<td>• Esterified estrogen</td>
</tr>
<tr>
<td>Endocrine system, other</td>
<td>• Chlorpropamide</td>
</tr>
<tr>
<td>Endocrine system, other</td>
<td>• Desiccated thyroid</td>
</tr>
<tr>
<td>Gastrointestinal system, other</td>
<td>• Trimethobenzamide</td>
</tr>
<tr>
<td>Pain medications, skeletal muscle relaxants</td>
<td>• Carisoprodol</td>
</tr>
<tr>
<td></td>
<td>• Chlorzoxazone</td>
</tr>
<tr>
<td></td>
<td>• Cyclobenzaprine</td>
</tr>
</tbody>
</table>
### Table 19 - High-Risk Medications With Days Supply Criteria

<table>
<thead>
<tr>
<th>Description</th>
<th>Prescription</th>
<th>Days Supply Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-Infectives, other</td>
<td>• Nitrofurantoin</td>
<td>&gt;90 days</td>
</tr>
<tr>
<td></td>
<td>• Nitrofurantoin macrocrystals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Nitrofurantoin macrocrystals-monohydrate</td>
<td></td>
</tr>
<tr>
<td>Nonbenzodiazepine hypnotics</td>
<td>• Eszopiclone</td>
<td>&gt;90 days</td>
</tr>
<tr>
<td></td>
<td>• Zaleplon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Zolpidem</td>
<td></td>
</tr>
</tbody>
</table>

**Numerator Note:** Some high-risk medications are not included in this specific measure but should be avoided above a specified average daily dose. These medications are listed in table DAE-C. To calculate an average daily dose multiply the quantity of pills ordered by the dose of each pill and divide by the days supply. For example, a prescription for a 30-days supply of digoxin containing 15 pills, 0.250 mg each pill, has an average daily dose of 0.125 mg.

### Table 20 - DAE-C: High-Risk Medications With Average Daily Dose Criteria

<table>
<thead>
<tr>
<th>Description</th>
<th>Prescription</th>
<th>Average Daily Dose Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha agonists, central</td>
<td>• Reserpine</td>
<td>&gt;0.1 mg/day</td>
</tr>
<tr>
<td>Cardiovascular, other</td>
<td>• Digoxin</td>
<td>&gt;0.125 mg/day</td>
</tr>
<tr>
<td>Tertiary TCAs (as single agent or as part of combination products)</td>
<td>• Doexpin</td>
<td>&gt;6 mg/day</td>
</tr>
</tbody>
</table>

**Numerator Options:**

**Performance Met:** One high-risk medication ordered (G9365)

**Performance Not Met:** One high-risk medication not ordered (G9366)
MULTIPLE CHRONIC CONDITIONS MEASURES GROUP RATIONALE AND CLINICAL RECOMMENDATION STATEMENTS

MEASURE #47 – CARE PLAN

RATIONALE:
It is essential that the patient’s wishes regarding medical treatment be established as much as possible prior to incapacity. The Work Group has determined that the measure should remain as specified with no required timeframe based on a review of the literature. Studies have shown that people do change their preferences often with regard to advanced care planning, but it primarily occurs after a major medical event or other health status change. In the stable patient, it would be very difficult to define the correct interval. It was felt by the Work Group that the error rate in simply not having addressed the issue at all is so much more substantial (Teno, 1997) than the risk that an established plan has become outdated that we should not define a specific timeframe at this time. As this measure is tested and reviewed, we will continue to evaluate if and when a specific timeframe should be included.

CLINICAL RECOMMENDATION STATEMENTS:
Advance directives are designed to respect patient’s autonomy and determine his/her wishes about future life-sustaining medical treatment if unable to indicate wishes. Key interventions and treatment decisions to include in advance directives are: resuscitation procedures, mechanical respiration, chemotherapy, radiation therapy, dialysis, simple diagnostic tests, pain control, blood products, transfusions, and intentional deep sedation.

- Conversations with relatives, friends, and clinicians are most common form; should be thoroughly documented in medical record for later reference.
- Properly verified oral statements carry same ethical and legal weight as those recorded in writing.

Instructional advance directives (DNR orders, living wills)
- Written instructions regarding the initiation, continuation, withholding, or withdrawal of particular forms of life-sustaining medical treatment.
- May be revoked or altered at any time by the patient.
- Clinicians who comply with such directives are provided legal immunity for such actions.

Durable power of attorney for health care or health care proxy
- A written document that enables a capable person to appoint someone else to make future medical treatment choices for him or her in the event of decisional incapacity. (AGS)

The National Hospice and Palliative Care Organization provides the Caring Connection web site, which provides resources and information on end-of-life care, including a national repository of state-by-state advance directives.

MEASURE #110 – PREVENTIVE CARE AND SCREENING: INFLUENZA IMMUNIZATION

RATIONALE:
Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications. Influenza vaccine is recommended for all persons aged ≥ 6 months who do not have contraindications to vaccination.

CLINICAL RECOMMENDATION STATEMENTS:
The following evidence statements are quoted verbatim from the referenced clinical guidelines.

Routine annual influenza vaccination is recommended for all persons aged >=6 months who do not have contraindications. Vaccination optimally should occur before onset of influenza activity in the community. Health care providers should offer vaccination soon after vaccine becomes available (by October, if possible). Vaccination should be offered as long as influenza viruses are circulating. (CDC/ACIP, 2014)
MEASURE #128 - PREVENTIVE CARE AND SCREENING: BODY MASS INDEX (BMI) SCREENING AND FOLLOW-UP PLAN

RATIONALE:

Normal Parameters for Age 65 Years and Older
Winter et al. (2014) performed a meta-analysis looking at the relationship between BMI and all-cause mortality among adults 65 and older. They identified a higher risk of mortality among those with a BMI <23 kg/m² and recommended monitoring weight status in this group to address any modifiable causes of weight loss promptly with due consideration of individual comorbidities. Dahl et al. (2013) reported that old persons (70-79) who were overweight had a lower mortality risk than old persons who were of normal weight, even after controlling for weight change and multimorbidity. The study also shows that persons who increased or decreased in BMI had a greater mortality risk than those who had a stable BMI, particularly those aged 70 to 79. Their results provide support to the belief that the World Health Organization guidelines for BMI are overly restrictive in old age.

BMI Above Upper Parameters
Obesity continues to be a costly public health concern in the United States. The Centers for Disease Control and Prevention (CDC, 2010) reported in 2009, no state met the Healthy People 2010 obesity target of 15 percent and the self-reported overall prevalence of obesity among adults had increased 1.1 percentage points in 2007 to 26.7 percent (2010). Ogden, Carroll, Kit and Flegal (2013) reported the prevalence of BMI-defined obesity in adults is high and continues to exceed 30% in most sex-age groups (34.9% overall). They also stated the overall prevalence of obesity did not differ between men and women in 2011–2012; however, among non-Hispanic black adults, 56.6% of women were obese compared with 37.1% of men. In addition to the continued high prevalence rate for adults in general, Flegal, Carroll & Kit (2012) report a significant increase for men and for non-Hispanic black and Mexican American women over the 12-year period from 1999 through 2010 (2012). Moyer (2012) reported: Obesity is associated with such health problems as an increased risk for coronary artery disease, type 2 diabetes, various types of cancer, gallstones and disability. These comorbid medical conditions are associated with higher use of health care services and costs among obese patients (p. 373).

Finkelstein, Trogdon, Cohen and Dietz (2009) found that in 2006, across all payers, per capita medical spending for the obese is $1,429 higher per year, (42 percent) than for someone of normal weight. Using 2008 dollars, this was estimated to be equivalent to $147 billion dollars in medical care costs related to obesity.

Padula, Allen and Nair (2014) examined data from a commercial claims and encounters database to estimate the cost for obesity and associated comorbidities among working-age adults who had a claim with a primary or secondary diagnosis of obesity in 2006-2007. The mean net expenditure for inpatient and outpatient claims was $1,907 per patient per visit. The increases in cost for comorbidities ranged from $527 for obesity with CHF to $15,733 for the combination of obesity, diabetes mellitus, hypertension and depression.

In addition to a high prevalence rate of obesity, less than 50% of obese adults in 2010 received advice to exercise or perform physical activity (Barnes & Schoenborn, 2012).

BMI Below Normal Parameters
In the National Center for Health Statistics (NCHS) Health E-Stat, Fryer and Ogden (2012) reported that poor nutrition or underlying health conditions can result in underweight. Results from the 2007-2010 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate an estimated 1.7% of U.S. adults are underweight with women more likely to be underweight than men (2012).
In a cohort study conducted by Borrell and Lalitha (2014), data from NHANES III (1988-1994) was linked to the National Death Index mortality file with follow-up to 2006, and showed that when compared to their normal weight counterparts (BMI 18.5-25 kg/m²), underweight (BMI <18.5 kg/m²) had significantly higher death rates (Hazard Ratio= 2.27; 95% confidence interval (CI) = 1.78, 2.90).

Ranhoff, Gjoen and Mowe (2005) recommended using BMI < 23 kg/m² for the elderly to identify positive results with malnutrition screens and poor nutritional status.

**CLINICAL RECOMMENDATION STATEMENTS:**
Although multiple clinical recommendations addressing obesity have been developed by professional organizations, societies and associations, two recommendations have been identified which exemplify the intent of the measure and address the numerator and denominator.

The US Preventive Health Services Task Force (USPSTF) recommends screening all adults (aged 18 years and older) for obesity. Clinicians should offer or refer patients with a BMI of 30 or higher to intensive, multicomponent behavioral interventions. This is a B recommendation (Moyer, 2012).

As cited in Wilkinson et al. (2013), Institute for Clinical Systems Improvement (ICSI) Preventive Services for Adults, Obesity Screening (Level II) Recommendation provides the following guidance:

- Record height, weight and calculate body mass index at least annually
- Clinicians should consider waist circumference measurement to estimate disease 25 to 34.9 kg/m², sex risk for patients who have BMI scores indicative of overweight or obesity class I. For adult patients with a BMI of specific waist circumference cutoffs should be used in conjunction with BMI to identify increased disease risk.
  - A BMI greater or equal to 30 is defined as obese
  - A BMI of 25-29 is defined as overweight
  - Intensive intervention for obese individuals, based on BMI, is recommended by the U.S. Preventive Services to help control weight.

Similarly, the 2013 joint report/guideline from the American Heart Association, American College of Cardiology and The Obesity Society also recommend measuring height and weight and calculating BMI at annual visits or more frequently, using the current cutpoints for overweight (BMI>25.0-29.9 kg/m²) and obesity (BMI ≥30 kg/m²) to identify adults who may be at elevated risk of CVD and the current cutpoints for obesity to identify adults who may be at elevated risk of mortality from all causes. They also recommend counseling overweight and obese individuals on their increased risk for CVD, type 2 diabetes, all-cause mortality and need for lifestyle changes.

**MEASURE #130 – DOCUMENTATION OF CURRENT MEDICATIONS IN THE MEDICAL RECORD RATIONALE:**
In the American Medical Association’s (AMA) Physician’s Role in Medication Reconciliation (2007), critical patient information, including medical and medication histories, current medications the patient is receiving and taking, and sources of medications, is essential to the delivery of safe medical care. However, interruptions in the continuity of care and information gaps in patient health records are common and significantly affect patient outcomes. Consequently, clinical judgments may be based on incomplete, inaccurate, poorly documented or unavailable information about the patient and his or her medication.

As identified by The Agency for Healthcare Research and Quality in the National Healthcare Disparities report (2013), “different providers may prescribe medications for the same patient. Patients are responsible for keeping track of all their medications, but medication information can be confusing, especially for patients on multiple
medications. When care is not well coordinated and some providers do not know about all of a patient's medications, patients are at greater risk for adverse events related to drug interactions, overdosing, or underdosing."

In addition, providers need to periodically review all of a patient's medications to ensure that they are taking what is needed and only what is needed. Medication reconciliation has been shown to reduce both medication errors and adverse drug events (Whittington & Cohen, 2004).

Medication safety efforts have primarily focused on hospitals; however, the majority of health care services are provided in the outpatient setting where two-thirds of physician visits result in writing at least one prescription (Stock et al., 2009). Chronically ill patients are increasingly being treated as outpatients, many of whom take multiple medications requiring close monitoring (Nassaralla et al., 2007).

Adverse drug events (ADE) prove to be more fatal in outpatient settings (1 of 131 outpatient deaths) than in hospitals (1 of 854 inpatient deaths) (Nassaralla et al., 2007). According to the first study to utilize nationally-representative data to examine annual rates of ADEs in the ambulatory care setting "Adverse Drug events in U.S. Adult Ambulatory Medical Care," ADE rates increase with age, adults 25-44 years old had a rate of 1.3 per 10,000 person per year, those 45-64 had a rate of 2.2 per 10,000 per year, and those 65 years and older had the highest rate, at 3.8 ADEs per 10,000 persons per year. This study estimates that 13.5 million ADE related visits occurred between 2005-2007, estimating that approximately 4.5 million ambulatory ADE visits occur each year. These 4.5 million visits are associated with approximately 400,000 hospitalizations annually. According to the Institute of Medicine (IOM), in the US, as many as 98,000 deaths per year are attributable to preventable adverse events that occur in the hospitals setting with annual costs of between $17 billion and $29 billion. (Sarkar et al., 2011)

Additionally, findings of The Commonwealth Fund (2010) studies identified 11% to 28% of the 4.3 million visit related ADEs (VADE) in 2001 might have been prevented with improved systems of care and better patient education, yielding an estimate of 473,000 to 1.2 million potentially preventable VADEs annually and potential cost-savings of $946 million to $2.4 billion.

According to the AMA's published report, The Physician's Role in Medication Reconciliation, the rate of medication errors during hospitalization was estimated to be 52 per 100 admissions, or 70 per 1,000 patient days in 2005. Emerging research suggests the scope of medication-related errors in ambulatory settings is as extensive as or more extensive than during hospitalization. Ambulatory visits result in a prescription for medication 50 to 70% of the time. One study estimated the rate of ADEs in the ambulatory setting to be 27 per 100 patients. It is estimated that between 2004 and 2005, in the United States 701,547 patients were treated for ADEs in emergency departments and 117,318 patients were hospitalized for injuries caused by an ADE. Individuals aged 65 years and older are more likely than any other population group to require treatment in the emergency department for ADEs. (AMA, 2007).

A Systematic Review on "Prevalence of Adverse Drug Events in Ambulatory Care" finds that "In the ambulatory care setting, adverse drug events (ADEs) have been reported to occur at a rate of 25%. Approximately 39% of these ADEs were preventable. Since many ADEs are associated with medication errors, and thus potentially preventable, understanding the nature of medication errors in ambulatory care settings can direct attention toward improvement of medication safety in ambulatory care." Data extracted and synthesized across studies indicated the median preventable ADE rates in ambulatory care-based studies were 16.5%. (Tache et al., 2011).

The Agency for Healthcare Research and Quality's (AHRQ) National's Healthcare Disparities Report (2011) identified the rate of adverse drug events (ADE) among Medicare beneficiaries in ambulatory settings 50 per 1,000 person-years. In 2005, AHRQ reported data on adults age 65 and over who received potentially inappropriate prescription medicines in the calendar year, by race, ethnicity, income, education, insurance status, and sex. The disparities were identified as follows: older Asians were more likely than older Whites to have inappropriate drug use (20.3% compared with 17.3%); Older Hispanics were less likely than older non-Hispanic Whites to have inappropriate drug use (13.5% compared with 17.6%); Older women were more likely than older men to have inappropriate drug use (20.2% compared with 14.3%); there were no statistically significant differences by income or education.
Weeks et al. (2010) noted fragmented medication records across the health care continuum, inaccurate reporting of medication regimens by patients, and provider failure to acquire all of the necessary elements of medication information from the patient or record, present significant obstacles to obtaining an accurate medication list in the ambulatory care setting. Because these obstacles require solutions demonstrating improvements in access to information and communication, the Institute of Medicine and others have encouraged the incorporation of IT solutions in the medication reconciliation process. In a survey administered to office-based physicians with high rates of EMR use, Weeks et al. found there is an opportunity for universal medication lists utilizing health IT.

**CLINICAL RECOMMENDATION STATEMENTS:**
The Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide providers to maintain and communicate accurate patient medication information. Specifically, the section "Use Medicines Safely NPSG.03.06.01" states the following: "Maintain and communicate accurate patient medication information. The types of information that clinicians use to reconcile medications include (among others) medication name, dose, frequency, route, and purpose. Organizations should identify the information that needs to be collected to reconcile current and newly ordered medications and to safely prescribe medications in the future." (Joint Commission, 2015, retrieved at: Joint Commission's 2015 Ambulatory Care National Patient Safety Goals guide).

The National Quality Forum's 2010 update of the Safe Practices for Better Healthcare, states healthcare organizations must develop, reconcile, and communicate an accurate patient medication list throughout the continuum of care. Improving the safety of healthcare delivery saves lives, helps avoid unnecessary complications, and increases the confidence that receiving medical care actually makes patients better, not worse. Every healthcare stakeholder group should insist that provider organizations demonstrate their commitment to reducing healthcare error and improving safety by putting into place evidence-based safe practices.

The AMA's published report, *The Physician’s Role in Medication Reconciliation*, identified the best practice medication reconciliation team as one that is multidisciplinary and—in all settings of care—will include physicians, pharmacists, nurses, ancillary health care professionals and clerical staff. The team’s variable requisite knowledge, skills, experiences, and perspectives are needed to make medication reconciliation work as safely and smoothly as possible. Team members may have access to vital information or data needed to optimize medication safety. Because physicians are ultimately responsible for the medication reconciliation process and subsequently accountable for medication management, physician leadership and involvement in all phases of developing and initiating a medication reconciliation process or model is important to its success.

**MEASURE #131 – PAIN ASSESSMENT AND FOLLOW-UP**

**RATIONALE:**
Chronic pain is defined as pain without biological values that has persisted beyond the normal time and despite the usual customary efforts to diagnose and treat the original condition and injury. If a patient's pain has persisted for six weeks (or longer than the anticipated healing time), a thorough evaluation for the course of the chronic pain is warranted (ICSI, 2013).

Chronic pain affects approximately 100 million adults in the USA. (Gaskin, 2012). It is clear the enormous pain-related costs represent both a great challenge and an opportunity in terms of improving the quality and cost-effectiveness of care (Mayday Fund, 2009).

Research also shows gender differences in the experience and treatment of pain. Most chronic pain conditions are more prevalent among women; however, women's pain complaints tend to be poorly assessed and undertreated (Green, 2003; Chronic Pain Research Alliance 2011, Weimer 2013). Although women may have higher baseline pain, differences in pain levels may not persist at one month (Peterson, 2012).

A growing body of research reveals even more extensive gaps in pain assessment and treatment among racial and ethnic populations, with minorities receiving less care for pain than non-Hispanic whites (Burgess, 2013; Green, 2003; Green, 2007; Green et al., 2011; Todd et al., 2004; Todd et al., 2007). Differences in pain care occur across all
types of pain (e.g., acute, chronic, cancer-related) and medical settings (e.g., emergency departments and primary care) (Green, 2003; Green, 2007; Todd et al., 2007). Even when income, insurance status and access to health care are accounted for, minorities are still less likely than whites to receive necessary pain treatments (Green, 2003; Green, 2007; Paulson et al., 2007). Black race is associated with neighborhood socio-economic status (SES) and race plays a role in pain outcomes beyond SES (Green, 2012).

“When assessing and treating pain, practitioner sex, race, age, and duration of experience were all significantly associated with pain management decisions. These findings suggest that pain assessment and treatment decisions may be impacted by the health care providers’ demographic characteristics, effects which may contribute to pain management disparities.” (Bartley et al., 2015).

“A standard minimum pain assessment for back-pain patients should integrate pain intensity (e.g. VAS/NRS), pain affect (e.g. five-point VRS) and pain-related disability. Depending on more detailed research questions, more sophisticated questionnaires on pain affect (e.g. MPQ), coping strategies and fear-avoidance behavior should be used. This allows for a more comprehensive assessment of pain and factors influencing pain perception.” (Haefeli M., Elfering. A., 2005).

The American Pain Foundation (2009) identified pertinent facts related to the impact of pain as follows:

- Approximately 76.5 million Americans suffer from pain.
- Pain affects more Americans than diabetes, heart disease and cancer combined. It is the number one reason people seek medical care.
- Uncontrolled pain is a leading cause of disability and diminishes quality of life for patients, survivors, and their loved ones. It interferes with all aspects of daily activity, including sleep, work, social and sexual relations.
- Under-treated pain drives up costs – estimated at $100 billion annually in healthcare expenses, lost income, and lost productivity– extending length of hospital stays, as well as increasing emergency room trips and unplanned clinic visits.
- Medically underserved populations endure a disproportionate pain burden in all health care settings.
- Disparities exist among racial and ethnic minorities in pain perception, assessment, and treatment for all types of pain, whether chronic or acute.

The Institute Of Medicine’s (IOM) Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research (2011) report suggests that chronic pain rates will continue to increase as a result of:

- More Americans will experience a disease in which chronic pain is associated (diabetes, cardiovascular disease, etc.).
- Increase in obesity which is associated with chronic conditions that have painful symptoms.
- Progress in lifesaving techniques for catastrophic injuries for people who would have previously died leads to a group of young people at risk for lifelong chronic pain.
- Surgical patients are at risk for acute and chronic pain.
- The public has a better understanding of chronic pain syndromes and new treatments and therefore may seek help when they may not have sought help in the past.

There are no current estimates of the total cost of poorly controlled pain in today’s dollars. Viewed from the perspective of health care inflation at levels of more than 40% during the past decade (President’s Council of Economic Advisors, 2009), the cost of health care due to pain is estimated to be between $261 to $300 billion. The value of lost productivity based on estimates of days of work missed is $11.6 to 12.7 billion, hours of work lost is 95.2 to $96.5 billion and lower wages is $190.6 to $226.3 billion.
CLINICAL RECOMMENDATION STATEMENTS:
Chronic pain assessment should include determining the mechanisms of pain through documentation of pain location, intensity, quality and onset/duration; functional ability and goals; and psychological/social factors such as depression or substance abuse.

A patient-centered, multifactorial, comprehensive care plan is necessary; one that includes biopsychosocial factors, as well as spiritual and cultural issues. It is important to have an interdisciplinary team approach which includes the primary care physician and specialty areas of psychology and physical rehabilitation.

The Institute for Clinical Systems Improvement (ICSI, 2013) Assessment and Management of Chronic Pain Guideline, Sixth Edition is based on a very broad foundation of evidence addressing a wide range of clinical conditions. It was chosen because it addresses the key factors of the comprehensive plan of care which incorporates self-management and active input from the patient and primary care clinician, pain assessment outcomes and referral to a pain medicine specialist or pain medicine specialty clinic.

The Institute for Clinical Systems Improvement (ICSI, 2012) Adult Acute and Sub-acute Low Back Pain guideline provides guidelines for physical therapists for low back pain assessment criteria, reducing or eliminating imaging for diagnosis of non-specific low back pain in patients 18 years and older, first-line treatment which emphasizes patient education and a core treatment plan that includes encouraging activity, use of heat, no imaging, cautious and responsible use of opioids, anti-inflammatory and analgesic over-the-counter medications and return to work assessment, advising patients with acute or subacute low back pain to stay active and the use of opioids.

Low Back Pain: Clinical Guidelines Linked to the International Classification of Functioning, Disability, and Health from the Orthopedic Section of the American Physical Therapy Association (Delitto, 2012) provides evidence to classify musculoskeletal conditions, specify interventions and identify appropriate outcome measures.

“Initial physical therapy management was not associated with increased health care costs or utilization of specific services following a new primary care LBP consultation” (Fritz, 2013, p. 1).

Anchored numerical scales are recommended for tracking routine progress, particularly pain interference with important activities. Regional or condition functional outcome scales should be routinely used at baseline and periodic follow-ups. More frequent follow-up is recommended with higher frequency care. (Washington State Department of Labor and Industries, 2014)

MEASURE #134 - PREVENTIVE CARE AND SCREENING: SCREENING FOR CLINICAL DEPRESSION AND FOLLOW-UP PLAN
RATIONALE:
The World Health Organization (WHO), as seen in Pratt & Brody (2008), found that major depression was the leading cause of disability worldwide. Depression causes suffering, decreases quality of life, and causes impairment in social and occupational functioning. It is associated with increased health care costs as well as with higher rates of many chronic medical conditions. Studies have shown that a higher number of depression symptoms are associated with poor health and impaired functioning, whether or not the criteria for a diagnosis of major depression are met. Persons 40-59 years of age had higher rates of depression than any other age group. Persons 12-17, 18-39 and 60 years of age and older had similar rates of depression. Depression was more common in females than in males. Non-Hispanic black persons had higher rates of depression than non-Hispanic white persons. In the 18-39 and 40-59 age groups, those with income below the federal poverty level had higher rates of depression than those with higher income. Among persons 12-17 and 60 years of age and older, raters of depression did not vary significantly by poverty status.

Overall, approximately 80% of persons with depression reported some level of difficulty in functioning because of their depressive symptoms. In addition, 35% of males and 22% of females with depression reported that their depressive symptoms make it very or extremely difficult for them to work, get things done at home, or get along with
other people. More than one-half of all persons with mild depressive symptoms also reported some difficulty in daily functioning attributable to their symptoms.

15–20 percent of adults older than age 65 in the United States have experienced depression (Geriatric Mental Health Foundation, 2008). 7 million adults aged 65 years and older are affected by depression (Steinman, 2007). Chronically ill Medicare beneficiaries with accompanying depression have significantly higher health care costs than those with chronic diseases alone (Unützer, 2009). People aged 65 years and older accounted for 16 percent of suicide deaths in 2004 (Centers for Disease Control and Prevention, 2007).

The negative outcomes associated with early onset depression, make it crucial to identify and treat depression in its early stages. As reported in Borner (2010), a study conducted by the World Health Organization (WHO) concluded that in North America, primary care and family physicians are likely to provide the first line of treatment for depressive disorders. Others consistently report a 10% prevalence rate of depression in primary care patients. But studies have shown that primary care physicians fail to recognize up to 50% of depressed patients, purportedly because of time constraints and a lack of brief, sensitive, easy-to-administer psychiatric screening instruments. Coyle et al. (2003), suggested that the picture is more grim for adolescents, and that more than 70% of children and adolescents suffering from serious mood disorders go unrecognized or inadequately treated. Healthy People 2020 recommends routine screening for mental health problems as a part of primary care for both children and adults (U.S. Department of Health and Human Services, 2014).

Major depressive disorder (MDD) is a debilitating condition that has been increasingly recognized among youth, particularly adolescents. The prevalence of current or recent depression among children is 3% and among adolescents is 6%. The lifetime prevalence of MDD among adolescents may be as high as 20%. Adolescent-onset MDD is associated with an increased risk of death by suicide, suicide attempts, and recurrence of major depression by young adulthood. MDD is also associated with early pregnancy, decreased school performance, and impaired work, social, and family functioning during young adulthood (Williams et al., 2009). Every fifth adolescent may have a history of depression by age 18. The increase in the onset of depression occurs around puberty. According to Zalsman et al., (2006) as reported in Borner et al. (2010), depression ranks among the most commonly reported mental health problems in adolescent girls.

The economic burden of depression is substantial for individuals as well as society. Costs to an individual may include suffering, possible side effects from treatment, fees for mental health and medical visits and medications, time away from work and lost wages, transportation, and reduced quality of personal relationships. Costs to society may include loss of life, reduced productivity (because of both diminished capacity while at work and absenteeism from work), and increased costs of mental health and medical care. In 2000, the United States spent an estimated $83.1 billion in direct and indirect costs of depression (USPSTF, 2009).

**CLINICAL RECOMMENDATION STATEMENTS:**

**Adolescent Recommendation (12-18 years)**
The USPSTF recommends screening of adolescents (12-18 years of age) for major depressive disorder (MDD) when systems are in place to ensure accurate diagnosis, psychotherapy (cognitive-behavioral or interpersonal), and follow-up (AHRQ, 2010, p.141).

Clinicians and health care systems should try to consistently screen adolescents ages 12-18 for major depressive disorder, but only when systems are in place to ensure accurate diagnosis, careful selection of treatment, and close follow-up (ICSI, 2013, p.16).

**Adult Recommendation (18 years and older)**
The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up (AHRQ, 2010, p.136).
A system that has embedded the elements of best practice and has capacity to effectively manage the volume should consider routine screening of all patients, based on the recommendations of the U.S. Preventive Services Task Force (ICSI, 2013, p.7). Clinicians should use a standardized instrument to screen for depression if it is suspected based on risk factors or presentation. Clinicians should assess and treat for depression in patients with some comorbidities. Clinicians should acknowledge the impact of culture and cultural differences on physician and mental health. Clinicians should screen and monitor depression in pregnant and post-partum women (ICSI, 2013, p.4).

**MEASURE #154 – FALLS: RISK ASSESSMENT**

**RATIONALE:**
Screening for specific medical conditions may direct the therapy. Although the clinical guidelines and supporting evidence calls for an evaluation of many factors, it was felt that for the purposes of measuring performance and facilitating implementation this initial measure must be limited in scope. For this reason, the work group defined an evaluation of balance and gait as a core component that must be completed on all patients with a history of falls as well as four additional evaluations – at least one of which must be completed within the 12 month period. Data elements required for the measure can be captured and the measure is actionable by the physician.

**CLINICAL RECOMMENDATION STATEMENTS:**
Older people who present for medical attention because of a fall, or report recurrent falls in the past year, or demonstrate abnormalities of gait and/or balance should be offered a multifactorial falls risk assessment. This assessment should be performed by a health care professional with appropriate skills and experience, normally in the setting of a specialist falls service. This assessment should be part of an individualized, multifactorial intervention. (NICE) (Grade C)

Multifactorial assessment may include the following:
- identification of falls history
- assessment of gait, balance and mobility, and muscle weakness
- assessment of osteoporosis risk
- assessment of the older person's perceived functional ability and fear relating to falling
- assessment of visual impairment
- assessment of cognitive impairment and neurological examination
- assessment of urinary incontinence
- assessment of home hazards
- cardiovascular examination and medication review (NICE) (Grade C)

A falls risk assessment should be performed for older persons who present for medical attention because of a fall, report recurrent falls in the past year, report difficulties in walking or balance or fear of falling, or demonstrate unsteadiness or difficulty performing a gait and balance test.

The falls risk evaluation should be performed by a clinician with appropriate skills and experience. [C]

**MEASURE #155 – FALLS: PLAN OF CARE**

**RATIONALE:**
Interventions to prevent future falls should be documented for the patient with 2 or more falls or injurious falls.

**CLINICAL RECOMMENDATION STATEMENTS:**
The USPSTF recommends exercise or physical therapy and vitamin D supplementation to prevent falls in community-dwelling adults aged 65 years or older who are at increased risk for falls.

Grade: B Recommendation.

The AGS 2010 Clinical Practice Guidelines Recommend:
Multifactorial/Multicomponent Interventions to Address Identified Risk(s) and Prevent Falls

1. A strategy to reduce the risk of falls should include multifactorial assessment of known fall risk factors and management of the risk factors identified. [A]

2. The components most commonly included in efficacious interventions were:
   a. Adaptation or modification of home environment [A]
   b. Withdrawal or minimization of psychoactive medications [B]
   c. Withdrawal or minimization of other medications [C]
   d. Management of postural hypotension [C]
   e. Management of foot problems and footwear [C]
   f. Exercise, particularly balance, strength, and gait training [A]

3. All older adults who are at risk of falling should be offered an exercise program incorporating balance, gait, and strength training. Flexibility and endurance training should also be offered, but not as sole components of the program. [A]

4. Multifactorial/multicomponent intervention should include an education component complementing and addressing issues specific to the intervention being provided, tailored to individual cognitive function and language. [C]

5. The health professional or team conducting the fall risk assessment should directly implement the interventions or should assure that the interventions are carried out by other qualified healthcare professionals. [A]

MEASURE #238 - USE OF HIGH-RISK MEDICATIONS IN THE ELDERLY

RATIONALE:
Seniors receiving inappropriate medications are more likely to report poorer health status at follow-up, compared to seniors who receive appropriate medications (Fu, Liu, and Christensen 2004). In 2005, rates of potentially inappropriate medication use in the elderly were as large or larger than in a 1996 national sample, highlighting the need for progress in this area (Simon et al. 2005). While some adverse drug events are not preventable, studies estimate that between 30 and 80 percent of adverse drug events in the elderly are preventable (MacKinnon and Hepler 2003).

Reducing the number of inappropriate prescriptions can lead to improved patient safety and significant cost savings. Conservative estimates of extra costs due to potentially inappropriate medications in the elderly average $7.2 billion a year (Fu, Liu, and Christensen 2004). Medication use by older adults will likely increase further as the U.S. population ages, new drugs are developed, and new therapeutic and preventative uses for medications are discovered (Rothberg et al. 2008). By the year 2030, nearly one in five U.S. residents is expected to be aged 65 years or older; this age group is projected to more than double in number from 38.7 million in 2008 to more than 88.5 million in 2050. Likewise, the population aged 85 years or older is expected to increase almost four-fold, from 5.4 million to 19 million between 2008 and 2050. As the elderly population continues to grow, the number of older adults who present with multiple medical conditions for which several medications are prescribed continues to increase, resulting in polypharmacy (Gray and Gardner 2009).

CLINICAL RECOMMENDATION STATEMENTS:
The measure is based on the literature and key clinical expert consensus processes by Beers in 1997, Zahn in 2001 and an updated process by Fick in 2003, which identified drugs of concern in the elderly based on various high-risk criteria. NCQA's Medication Management expert panel selected a subset of drugs that should be used with caution in the elderly for inclusion in the proposed measure based upon these two lists. NCQA analyzed the prevalence of drugs prescribed according to the Beers and Zhan classifications and determined that drugs identified by Zhan that are classified as never or rarely appropriate would form the basis for the list (Fick 2003).

Certain medications (MacKinnon 2003) are associated with increased risk of harms from drug side-effects and drug toxicity and pose a concern for patient safety. There is clinical consensus that these drugs pose increased risks in the elderly (Kaufman 2005). Studies link prescription drug use by the elderly with adverse drug events that contribute to
hospitalization, increased length of hospital stay, increased duration of illness, nursing home placement and falls and fractures that are further associated with physical, functional and social decline in the elderly (AHRQ 2009).
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