*Measure #11: Stroke and Stroke Rehabilitation: Carotid Imaging Reports

DESCRIPTION:
Percentage of final reports for carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram) performed for patients aged 18 years and older with the diagnosis of ischemic stroke or transient ischemic attack (TIA) that include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement

INSTRUCTIONS:
This measure is to be reported each time a carotid imaging study is performed during the reporting period for patients with a diagnosis of ischemic stroke or TIA. It is anticipated that clinicians who provide the physician component of diagnostic imaging studies for patients with stroke or TIA in the hospital or outpatient setting will submit this measure.

This measure is reported using CPT Category II codes:
ICD-9 diagnosis codes, CPT procedure codes, and patient demographics (age, gender, etc.) are used to identify patients who are included in the measure's denominator. CPT Category II codes are used to report the numerator of the measure.

When reporting the measure, submit the listed ICD-9 diagnosis codes, CPT procedure codes, and the appropriate CPT Category II code OR the CPT Category II code with the modifier. The modifiers allowed for this measure are: 1P- medical reasons, 8P- reasons not otherwise specified.

NUMERATOR:
Final carotid imaging study reports that include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement

> Definition: "Direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement" includes direct angiographic stenosis calculation based on the distal lumen as the denominator for stenosis measurement OR an equivalent validated method referenced to the above method (e.g., for duplex ultrasound studies, velocity parameters that correlate the residual internal carotid lumen with methods based on the distal internal carotid lumen)
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> Numerator Coding:
> Reference to Measurements of Distal Internal Carotid Diameter as the Denominator for Stenosis Measurement Documented
> CPT II 3100F: Carotid image study report includes direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement

OR

Measurements of Distal Internal Carotid Diameter not Referenced for Medical Reasons

Append a modifier (1P) to CPT Category II code 3100F to report documented circumstances that appropriately exclude patients from the denominator.

- 1P: Documentation of medical reason(s) for not including direct or indirect reference to measurements of distal internal carotid diameter

OR

Measurements of Distal Internal Carotid Diameter not Referenced, Reason not Specified

Append a reporting modifier (8P) to CPT Category II code 3100F to report circumstances when the action described in the numerator is not performed and the reason is not otherwise specified.

- 8P: Carotid image study report did not include direct or indirect reference to measurements of distal internal carotid diameter as the denominator for stenosis measurement, reason not otherwise specified

DENOMINATOR:

All final reports for carotid imaging studies (neck MR angiography [MRA], neck CT angiography [CTA], neck duplex ultrasound, carotid angiogram) performed for patients aged 18 years and older with a diagnosis of ischemic stroke or TIA

Denominator Coding:

An ICD-9 diagnosis code for ischemic stroke or TIA and a CPT procedure code for patients undergoing carotid imaging are required to identify patients for denominator inclusion.

ICD-9 diagnosis codes: 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.01, 434.11, 434.91, 435.0, 435.1, 435.2, 435.3, 435.8, 435.9

AND

CPT procedure codes: 70498, 70547, 70548, 70549, 75660, 75662, 75665, 75671, 75676, 75680, 93880, 93882

RATIONALE:

Since the clinical decision-making is based on randomized trial evidence and degree of stenosis is an important element of the decision for carotid intervention, characterization of the degree of stenosis needs to be standardized. Requiring that stenosis calculation be based on a denominator of distal internal carotid diameter or, in the case of duplex ultrasound, velocity measurements that have been correlated to angiographic stenosis calculation based on distal internal carotid diameter, makes the measure applicable to both imaging and duplex studies.

CLINICAL RECOMMENDATION STATEMENTS:

For patients with symptomatic atherosclerotic carotid stenosis > 70%, as defined using the NASCET criteria, the value of carotid endarterectomy (CEA) has been clearly established from the results of 3 major prospective randomized trials: the NASCET, the European Carotid Surgery Trial (ECST), and the Veterans Affairs Cooperative Study Program. Among symptomatic patients with TIAs or minor strokes and high-grade carotid stenosis, each trial showed impressive relative and absolute risk reductions for those randomized to surgery. For patients with carotid stenosis < 50%, these trials showed that there was no significant benefit of surgery. (Sacco, ASA, 2006)

It is important to consider that the degree of carotid stenosis in ECST was measured differently than that in NASCET. The degree of carotid stenosis is significantly higher if calculated by the NASCET rather than the ECST method. In summary, it appears that patients with a recent TIA or nondisabling stroke with ipsilateral carotid stenosis benefit from surgery if the stenosis is > 50% as measured by the NASCET method; however, this benefit appears to be less pronounced in women. Recently symptomatic patients with > 70% stenosis as measured by the NASCET method can expect a far greater benefit from carotid endarterectomy. (Albers, AHA, 1999)