

**\*Measure #23: Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis (When Indicated in ALL Patients)**

**DESCRIPTION:**

Percentage of patients aged 18 years and older undergoing procedures for which VTE prophylaxis is indicated in all patients, who had an order for Low Molecular Weight Heparin (LMWH), Low-Dose Unfractionated Heparin (LDUH), adjusted-dose warfarin, fondaparinux or mechanical prophylaxis to be given within 24 hours prior to incision time or within 24 hours after surgery end time

**INSTRUCTIONS:**

This measure is to be reported each time a procedure is performed during the reporting period for all patients who undergo surgical procedures for which VTE prophylaxis is indicated. There is no diagnosis associated with this measure. It is anticipated that clinicians who perform the listed surgical procedures as specified in the denominator coding will submit this measure.

**This measure is reported using CPT Category II 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. If multiple surgical procedures were performed on the same date of service and submitted on the same claim form, it is not necessary for the same clinician to submit the CPT Category II code with each procedure. However, if multiple NPIs are reporting this measure on the same claim, each NPI should report the quality-data code.

When reporting the measure, submit the listed CPT procedures 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:**

Surgical patients who had an order for LMWH, LDUH, adjusted-dose warfarin, fondaparinux or mechanical prophylaxis to be given within 24 hours prior to incision time or within 24 hours after surgery end time

**Numerator Instructions:** There must be documentation of order (written order, verbal order, or standing order/protocol) for VTE prophylaxis OR documentation that VTE prophylaxis was given.

**Definition:** Mechanical prophylaxis does not include TED hose.

**Numerator Coding:**

**Appropriate VTE Prophylaxis Ordered**

**CPT II 4044F:** Documentation that an order was given for venous thromboembolism (VTE) prophylaxis to be given within 24 hours prior to incision time or 24 hours after surgery end time

***Note:** A single CPT Category II code is provided for VTE prophylaxis is ordered or VTE prophylaxis is given. If VTE prophylaxis is given, report 4044F.*

OR

**VTE Prophylaxis not Ordered for Medical Reasons**

Append a modifier (**1P**) to CPT Category II code **4044F** above to report documented circumstances that appropriately exclude patients from the denominator.

- **1P:** Documentation of medical reason(s) for patient not receiving any form of VTE prophylaxis (LMWH, LDUH, adjusted-dose warfarin, fondaparinux or mechanical prophylaxis) within 24 hours prior to incision time or 24 hours after surgery end time

OR

**VTE Prophylaxis not Ordered, Reason not Specified**

Append a reporting modifier (**8P**) to CPT Category II code **4044F** to report circumstances when the action described in the numerator is not performed and the reason is not otherwise specified.

- **8P:** Order was not given for venous thromboembolism (VTE) prophylaxis to be given within 24 hours prior to incision time or 24 hours after surgery end time, reason not otherwise specified

**DENOMINATOR:**

All surgical patients aged 18 years and older undergoing procedures for which VTE prophylaxis is indicated in all patients

**Denominator Coding:**

A CPT procedure code for surgical procedures for which VTE prophylaxis is indicated is required to identify patients for denominator inclusion.

SURGICAL PROCEDURE	CPT CODE
Neurological Surgery	22558, 22600, 22612, 22630, 61313, 61510, 61512, 61518, 61548, 61697, 61700, 62230, 63015, 63020, 63047, 63056, 63081, 63267, 63276
Hip Reconstruction	27125, 27130, 27132, 27134, 27137, 27138
Knee Reconstruction	27440, 27441, 27442, 27443, 27445, 27446, 27447
Genitourinary Surgery	50020, 50220, 50225, 50230, 50234, 50236, 50240, 50320, 50340, 50360, 50365, 50370, 50380, 50543, 50545, 50546, 50547, 50548, 50715, 50722, 50725, 50727, 50728, 50760, 50770, 50780, 50782, 50783, 50785, 50800, 50810, 50815, 50820, 50947, 50948, 51550, 51555, 51565, 51570, 51575, 51580, 51585, 51590, 51595, 51596, 51597, 51800, 51820, 51900, 51920, 51925, 51960, 55810, 55812, 55815, 55821, 55831, 55840, 55842, 55845, 55866
Gynecologic Surgery	56630, 56631, 56632, 56633, 56634, 56637, 56640, 58200, 58210, 58240, 58285, 58951, 58953, 58954, 58956

Hip Fracture Surgery	27235, 27236, 27244, 27245, 27269
General Surgery	19260, 19271, 19272, 19301, 19302, 19303, 19304, 19305, 19306, 19307, 19316, 19318, 19324, 19325, 19328, 19330, 19342, 19350, 19355, 19357, 19361, 19364, 19366, 19367, 19368, 19369, 19370, 19371, 19380, 38100, 38101, 38115, 38120, 38571, 38572, 38700, 38720, 38724, 38740, 38745, 38747, 38760, 38765, 38770, 38780, 39501, 39502, 39503, 39520, 39530, 39531, 39540, 39541, 39545, 39560, 39561, 43020, 43030, 43045, 43100, 43101, 43107, 43108, 43112, 43113, 43116, 43117, 43118, 43121, 43122, 43123, 43124, 43130, 43135, 43280, 43300, 43305, 43310, 43312, 43313, 43314, 43320, 43324, 43325, 43326, 43330, 43331, 43340, 43341, 43350, 43351, 43352, 43360, 43361, 43400, 43401, 43405, 43410, 43415, 43420, 43425, 43496, 43500, 43501, 43502, 43510, 43520, 43605, 43610, 43611, 43620, 43621, 43622, 43631, 43632, 43633, 43634, 43640, 43641, 43644, 43645, 43651, 43652, 43653, 43770, 43771, 43772, 43773, 43774, 43800, 43810, 43820, 43825, 43830, 43832, 43840, 43843, 43845, 43846, 43847, 43848, 43850, 43855, 43860, 43865, 43870, 43880, 43886, 43887, 43888, 44005, 44010, 44020, 44021, 44025, 44050, 44055, 44110, 44111, 44120, 44125, 44126, 44127, 44130, 44140, 44141, 44143, 44144, 44145, 44146, 44147, 44150, 44151, 44155, 44156, 44157, 44158, 44160, 44180, 44186, 44187, 44188, 44202, 44204, 44205, 44206, 44207, 44208, 44210, 44211, 44212, 44227, 44300, 44310, 44312, 44314, 44316, 44320, 44322, 44340, 44345, 44346, 44602, 44603, 44604, 44605, 44615, 44620, 44625, 44626, 44640, 44650, 44660, 44661, 44680, 44700, 44800, 44820, 44850, 44900, 44950, 44960, 44970, 45000, 45020, 45100, 45108, 45110, 45111, 45112, 45113, 45114, 45116, 45119, 45120, 45121, 45123, 45126, 45130, 45135, 45136, 45150, 45160, 45170, 45190, 45395, 45397, 45400, 45402, 45500, 45505, 45550, 45560, 45562, 45563, 45800, 45805, 45820, 45825, 46715, 46716, 46730, 46735, 46740, 46742, 46744, 46746, 46748, 46750, 46751,

	46753, 46754, 46760, 46761, 46762, 47010, 47100, 47120, 47122, 47125, 47130, 47135, 47136, 47140, 47141, 47142, 47300, 47350, 47360, 47361, 47362, 47370, 47371, 47380, 47381, 47382, 47400, 47420, 47425, 47460, 47480, 47500, 47505, 47560, 47561, 47562, 47563, 47564, 47570, 47600, 47605, 47610, 47612, 47620, 47630, 47700, 47701, 47711, 47712, 47715, 47720, 47721, 47740, 47741, 47760, 47765, 47780, 47785, 47800, 47801, 47802, 47900, 48000, 48001, 48020, 48100, 48105, 48120, 48140, 48145, 48146, 48148, 48150, 48152, 48153, 48154, 48155, 48500, 48510, 48520, 48540, 48545, 48547, 48548, 48554, 48556, 49000, 49002, 49010, 49020, 49040, 49060, 49203, 49204, 49205, 49215, 49220, 49250, 49255, 49320, 49321, 49322, 49323, 49560, 49561, 49565, 49566, 49570, 50320, 50340, 50360, 50365, 50370, 50380, 60200, 60210, 60212, 60220, 60225, 60240, 60252, 60254, 60260, 60270, 60271, 60280, 60281, 60500, 60502, 60505, 60520, 60521, 60522, 60540, 60545, 60600, 60605, 60650
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**RATIONALE:**

This measure addresses VTE risk based on surgical procedure. VTE prophylaxis is appropriate for all patients undergoing these procedures regardless of individual *patient* thromboembolic risk factors.

Additional work is needed to determine if a physician-level measure for VTE prophylaxis can be developed to address individual patient thromboembolic risk factors, in addition to procedural risk, without creating data collection burden. Many of these procedures are done in hospitals and ASCs, but quite a few are performed in the physician's office. There are many reasons for the differences in the site of service, including that breast lesions and breast tissue varies considerably. Some women have a small breast and a small lesion that can be expeditiously treated as a minor office procedure done in 20 minutes under local anesthesia. In this instance, the evidence for DVT prophylaxis is simply not present. Other patients have small or large lesions located in difficult positions within a dense complex breast. In this instance, the patients have long procedures under general anesthesia. Both of these instances can occur within the same CPT code. It should be noted that the number of medical exclusions for these codes will likely be much higher than other codes to account for the variation in major and minor procedures within the same CPT code. Duration of VTE prophylaxis is not specified in the measure due to varying guideline recommendations for different patient populations.

### CLINICAL RECOMMENDATION STATEMENTS:

Recommend that mechanical methods of prophylaxis be used primarily in patients who are at high risk of bleeding (Grade 1C+) or as an adjunct to anticoagulant-based prophylaxis (Grade 2A).

Recommend **against** the use of aspirin alone as prophylaxis against VTE for any patient group (Grade 1A).

Recommend consideration of renal impairment when deciding on doses of LMWH, fondaparinux, the direct thrombin inhibitors, and other antithrombotic drugs that are cleared by the kidneys, particularly in elderly patients and those who are at high risk for bleeding (Grade 1C+).

Moderate-risk general surgery patients are those patients undergoing a nonmajor procedure and are between the ages of 40 and 60 years or have additional risk factors, or **those patients who are undergoing major operations and are < 40 years of age with no additional risk factors**. Recommend prophylaxis with LDUH, 5,000 U bid or LMWH  $\leq$  3,400 U once daily (both Grade 1A).

Higher-risk general surgery patients are those undergoing nonmajor surgery and are > 60 years of age or have additional risk factors, or **patients undergoing major surgery who are > 40 years of age or have additional risk factors**. Recommend thromboprophylaxis with LDUH, 5,000 U tid or LMWH, > 3,400 U daily (both Grade 1A).

Recommend that thromboprophylaxis be used in all major gynecologic surgery patients (Grade 1A).

For patients undergoing major, open urologic procedures, recommend routine prophylaxis with LDUH twice daily or three times daily (Grade 1A).

Patients undergoing major orthopedic surgery, which includes hip and knee arthroplasty and hip fracture repair, represent a group that is at particularly high risk for VTE, and routine thromboprophylaxis has been the standard of care for > 15 years. Elective total hip replacement: routine use of LMWH, fondaparinux, or adjusted-dose VKA (all Grade 1A). Elective total knee arthroplasty: routine thromboprophylaxis using LMWH, fondaparinux, or adjusted-dose VKA (all Grade 1A). Hip fracture surgery: routine use of fondaparinux (Grade 1A), LMWH (Grade 1C+), adjusted-dose VKA (Grade 2B), or LDUH (Grade 1B).

For major orthopedic surgical procedures, recommend that a decision about the timing of the initiation of pharmacologic prophylaxis be based on the efficacy-to-bleeding tradeoffs for that particular agent (Grade 1A). For LMWH, there are only small differences between starting preoperatively or postoperatively, both options acceptable (Grade 1A).

Recommend that thromboprophylaxis be routinely used in patients undergoing major neurosurgery (Grade 1A). (ACCP)