**SCIP-VTE-2: Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior to surgery to 24 hours after surgery end time**

**NQF# 0218**

**Developer:** Centers for Medicare & Medicaid Services/The Joint Commission

**Data Source:** CMS Hospital Compare

**Description:** This measures is used to assess the percent of surgery patients who receive appropriate venous thromboembolism (VTE) prophylaxis within 24 hours prior to anesthesia start time to 24 hours after anesthesia end time.

**Rationale:** There are over 30 million surgeries performed in the United States each year. Despite the evidence that VTE is one of the most common postoperative complications and prophylaxis is the most effective strategy to reduce morbidity and mortality, it is often underused. The frequency of VTE, that includes deep vein thrombosis and pulmonary embolism, is related to the type and duration of surgery, patient risk factors, duration and extent of postoperative immobilization, and use or nonuse of prophylaxis. According to Heit et al, 2000, surgery was associated with over a twenty-fold increase in the odds of being diagnosed with VTE. Studies have shown that appropriately used thromboprophylaxis has a positive risk/benefit ratio and is cost effective. Prophylaxis recommendations for this measures are based on selected surgical procedures from the 2008 American College of Chest Physicians guidelines.

**Evidence for Rationale:**

**Numerator:** Surgery patients who received appropriate VTE prophylaxis* within 24 hours prior to anesthesia start time to 24 hours after anesthesia end time.

**Denominator:** All selected surgery patients (See Appendix A, Table 5.10 AND Tables 5.17-5.24 of the Specifications Manual for the list of selected surgeries)

**Impact:**
- Affects large number of patients
- The large number of patients at risk and rate of death demonstrates the importance of continuing to strive for 100 percent compliance since VTE is one of the most common preventable causes of hospital death with about 1/3 of such occurrences being fatal.
- VTE is the number one cause of 30-day mortality in cancer patients after surgery.
- There are over 30 million surgeries performed in the U.S. and prevention of perioperative VTE is a major aspect of clinical care for the surgical patient. One study of patients discharged for 944 acute care hospitals in the U.S. found postoperative VTE to be the second most common medical complication and the third most common cause of excess mortality. Randomized clinical trial provides evidence that primary thromboprophylaxis reduces DVT and PE. Without prophylaxis, DVT occurs in almost 20% of major surgeries; orthopedic patients experience a higher rate at 40-60%.

**Evidence of High Impact:**

**Opportunity:**
- Opportunity for improvement exists, based on the coefficient of variation for the measure.

**Evidence:**
- Evidence-based guideline randomized controlled trial, expert opinion, systematic synthesis of research, meta-analysis
- Category IA: Strongly recommended for implementation and supported by well-designed experimental, clinical or epidemiological studies.

**Citations for Evidence:**

http://www.qualityforum.org/.../0218_Surgery_Patients_who_received_VTE_prophylaxis_within_24_Hours.aspx
http://www.qualityforum.org/.../Draft_Report_-_Phase_1_Commenting.aspx