

PSI # 12: Perioperative Pulmonary Embolism or Deep Vein Thrombosis**NQF#:** 0450**Developer:** Agency for Healthcare Research and Quality (AHRQ)**Data Source:** CMS; MHCC**Description:** This measure is used to assess the number of cases of deep vein thrombosis (DVT) or pulmonary embolism (PE) per 1,000 surgical discharges with an operating room procedure.**Rationale:** Widespread consensus exists that health care organizations can reduce patient injuries by improving the environment for safety from implementing technical changes, such as electronic medical record systems, to improving staff awareness of patient safety risks. Clinical process interventions also have strong evidence for reducing the risk of adverse events related to a patient's exposure to hospital care. Patient Safety Indicators (PSIs), which are based on computerized hospital discharge abstracts from the AHRQ's Healthcare Cost and Utilization Project (HCUP), can be used to better prioritize and evaluate local and national initiatives. Analyses of these and similar inexpensive, readily available administrative data sets may provide a screen for potential medical errors and a method for monitoring trends over time. The perioperative pulmonary embolism or deep vein thrombosis indicator is intended to capture cases of perioperative venous thromboses and embolism—specifically, pulmonary embolism and deep vein thrombosis. This indicator limits vascular complications codes to secondary diagnosis codes to eliminate complications that were present on admission. It further excludes patients who have a principal diagnosis code of DVT, as these patients are likely to have had PE/DVT present on admission.**Evidence for Rationale:**

- AHRQ quality indicators. Guide to patient safety indicators [version 3.1]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ);2007 mar 12. 76 p. (AHRQ Pub; no.03-R203).
- Kohn LT, Corrigan JM, Donaldson MS, editor(s). To err is human: building a safer health system. Washington (DC): National Academy Press; 2000.

Numerator: Discharges among cases meeting the inclusion and exclusion rules for the denominator with a secondary ICD-9-CM diagnosis code for proximal deep vein thrombosis or a secondary ICD-9-CM diagnosis code for pulmonary embolism.**Denominator:** All surgical and medical discharges, for patients aged 18 years and older, defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure. Exclude cases: with principal diagnosis of DVT or PE or secondary diagnosis present on admission; where a procedure for interruption of vena cava is the only operating room procedure; where a procedure for interruption of vena cava occurs before or on the same day as the first operating room procedure; MDC 14 (pregnancy, childbirth, and puerperium); any-listed ICD-9-CM diagnosis code for acute brain or spinal injury present on admission; any-listed ICD-9-CM procedure code for extracorporeal membrane oxygenation (ECMO); with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)**Impact:**

- Affects all surgical inpatients.

Opportunity:

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

Evidence:

- The evidence has not been formally assessed.

http://www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/V60-ICD09/TechSpecs/PSI_12_Periooperative_Pulmonary_EMBOLISM_or_Deep_Vein_Thrombosis_Rate.pdf