

Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate Technical Specifications

Patient Safety Indicators 12 (PSI 12)

AHRQ Quality Indicators™, Version 5.0

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Provider-Level Indicator

Type of Score: Rate

Description

Perioperative pulmonary embolism or deep vein thrombosis (secondary diagnosis) per 1,000 surgical discharges for patients ages 18 years and older. Excludes cases with principal diagnosis for pulmonary embolism or deep vein thrombosis; cases with secondary diagnosis for pulmonary embolism or deep vein thrombosis present on admission; cases in which interruption of vena cava occurs before or on the same day as the first operating room procedure; and obstetric discharges.

[NOTE: The software provides the rate per hospital discharge. However, common practice reports the measure as per 1,000 discharges. The user must multiply the rate obtained from the software by 1,000 to report events per 1,000 hospital discharges.]

Numerator

Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with a secondary ICD-9-CM diagnosis code for deep vein thrombosis or a secondary ICD-9-CM diagnosis code for pulmonary embolism.

ICD-9-CM Deep vein thrombosis diagnosis codes:

45111	PHLEBITIS AND THROMBOSIS OF FEMORAL VEIN (DEEP) (SUPERFICIAL)	45340	DVT-EMBLSM LOWER EXT NOS
45119	PHLEBITIS AND THROMBOPHLEBITIS - OF DEEP VESSEL OF LOWER EXTREMITIES - OTHER	45341	DVT-EMB PROX LOWER EXT
4512	PHLEBITIS AND THROMBOPHLEBITIS OF LOWER EXTREMITIES UNSPECIFIED	45342	DVT-EMB DISTAL LOWER EXT
45181	PHLEBITIS AND THROMBOPHLEBITIS OF ILIAC VEIN	4538	OTHER VENOUS EMBOLISM AND THROMBOSIS OF OTHER SPECIFIED VEINS
4519	PHLEBITIS AND THROMBOPHLEBITIS OF OTHER SITES - OF UNSPECIFIED SITE	4539	OTHER VENOUS EMBOLISM AND THROMBOSIS OF UNSPECIFIED SITE (Drop 2010)

ICD-9-CM Pulmonary embolism diagnosis codes:

4151	PULMONARY EMBOLISM AND INFARCTION	41513	SADDLE EMBOLUS OF PULMONARY ARTERY
41511	IATROGENIC PULMONARY EMBOLISM AND INFARCTION	41519	OTHER PULMONARY EMBOLISM

Denominator

Surgical discharges, for patients ages 18 years and older, with any-listed ICD-9-CM procedure codes for an operating room procedure. Surgical discharges are defined by specific DRG or MS-DRG codes.

See *Patient Safety Indicators Appendices*:

- Appendix A – Operating Room Procedure Codes
- Appendix D – Surgical Discharge DRGs
- Appendix E – Surgical Discharge MS-DRGs

Exclude cases:

- with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for deep vein thrombosis (see above)
- with a principal ICD-9-CM diagnosis code (or secondary diagnosis present on admission) for pulmonary embolism (see above)
- where a procedure for interruption of vena cava occurs before or on the same day as the first operating room procedure¹
- any procedure code for extracorporeal membrane oxygenation (ECMO)
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing)

ICD-9-CM Interruption of vena cava procedure code:

387 INTERRUPTION OF VENA CAVA

ICD-9-CM ECMO procedure code:

3965 EXTRACORPOREAL MEMBRANE OXYGENATION

¹ If day of procedure is not available in the input data file, the rate may be slightly lower than if the information was available