

Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate Technical Specifications

Patient Safety Indicators 12 (PSI 12)
AHRQ Quality Indicators™, Version 4.5a, July 2014
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 codes¹:

45111	FEMORAL VEIN PHLEBITIS	45341	AC DVT/EMB PROX LOW EXT (begin 2004)
45119	DEEP PHLEBITIS-LEG NEC		
4512	THROMBOPHLEBITIS-LEG NOS	45342	AC DBT/EMB DISTL LOW EXT (begin 2004)
45181	ILIAC THROMBOPHLEBITIS		
4519	<i>THROMBOPHLEBITIS OTHER NOS used with data prior to FY 2010)</i>	4538	<i>VENOUS THROMBOSIS NEC (end 2009)</i>
		4539	<i>VENOUS THROMBOSIS NOS (used with data prior to FY 2010)</i>
45340	AC DVT/EMBL LOW EXT NOS (begin 2004)		

¹The procedure or diagnosis codes are continuously updated. The current list of ICD-9-CM codes is valid for October 2012 through September 2013. Italicized codes are either not active in Fiscal Year 2013 or no longer used in the algorithm beginning with ICD-9-CM version 27 (FY 2010 or October 1, 2009).

ICD-9-CM Pulmonary embolism diagnosis codes¹:

4151	<i>PULMON EMBOLISM/INFARCT (end 1995)</i>	41513	SADDLE EMBOL PULMON ART
41511	IATROGEN PULM EMB/INFARC	41519	PULM EMBOL/INFARCT NEC

¹The procedure or diagnosis codes are continuously updated. The current list of ICD-9-CM codes is valid for October 2012 through September 2013. Italicized codes are not active in Fiscal Year 2013.

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 procedure[†]
- 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

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