Postoperative Pulmonary Embolism or Deep Vein Thrombosis Rate

Patient Safety Indicators #12
Technical Specifications
Provider-Level Indicator
AHRQ Quality Indicators, Version 4.3, August 2011

Version 4.3a is a maintenance release of Version 4.3. The differences between the two versions are:

- Version 4.3a includes Version 29 of the Limited License edition of the 3M™ APR-DRG Grouper. This grouper corrects an issue found in Version 28 of the Limited License edition of the 3M™ APR-DRG Grouper. The grouper is only used with the Inpatient Quality Indicator (IQI) mortality measures. Version 4.3 includes Version 28 of the Limited License edition of the 3M™ APR-DRG Grouper, which was incorrectly assigning a Risk of Mortality (ROM) subclass for cases dated on or after 10/1/10.
- Version 4.3a allows users to calculate area-level indicators for years 2010 and 2011, correcting an issue previously identified in Version 4.3.

All other aspects of the software, including measure specifications, remain the same. Thus this document (related to Version 4.3) remains unchanged.

Numerator

Discharges among cases meeting the inclusion and exclusion rules for the denominator with ICD-9-CM codes for deep vein thrombosis or pulmonary embolism in any secondary diagnosis field.

ICD-9-CM Deep vein thrombosis diagnosis codes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis Description</th>
<th>Code</th>
<th>Diagnosis Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4511</td>
<td>PHLEBITIS AND THROMBOSIS OF FEMORAL VEIN (DEEP) (SUPERFICIAL)</td>
<td>4519</td>
<td>PHLEBITIS AND THROMBOPHLEBITIS OF OTHER SITES - OF UNSPECIFIED SITE*</td>
</tr>
<tr>
<td>4519</td>
<td>PHLEBITIS AND THROMBOPHLEBITIS</td>
<td>4530</td>
<td>DVT-EMBLSM LOWER EXT NOS (OCT04)</td>
</tr>
<tr>
<td>4519</td>
<td>OF DEEP VESSEL OF LOWER EXTREMITIES – OTHER</td>
<td>4531</td>
<td>DVT-EMB PROX LOWER EXT (OCT04)</td>
</tr>
<tr>
<td>4520</td>
<td>PHLEBITIS AND THROMBOPHLEBITIS OF LOWER EXTREMITIES</td>
<td>4532</td>
<td>DVT-EMB DISTAL LOWER EXT (OCT04)</td>
</tr>
<tr>
<td>4538</td>
<td>UNSPECIFIED*</td>
<td>4539</td>
<td>OTHER VENOUS EMBOLISM AND THROMBOSIS OF OTHER SPECIFIED VEINS*</td>
</tr>
<tr>
<td>4581</td>
<td>PHLEBITIS AND THROMBOPHLEBITIS OF ILIAC VEIN</td>
<td></td>
<td>OTHER VENOUS EMBOLISM AND THROMBOSIS OF UNSPECIFIED SITE*</td>
</tr>
</tbody>
</table>

* Does not apply on or after October 1, 2009.

ICD-9-CM Pulmonary embolism diagnosis codes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Diagnosis Description</th>
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<th>Diagnosis Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4151</td>
<td>PULMONARY EMBOLISM AND INFARCTION</td>
<td>41519</td>
<td>PULMONARY EMBOLISM AND INFARCTION, OTHER</td>
</tr>
<tr>
<td>4151</td>
<td>IATROGENIC PULMONARY EMBOLISM AND INFARCTION</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Denominator
All surgical discharges age 18 and older defined by specific DRGs or MS-DRGs and an ICD-9-CM code for an operating room procedure.

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 principal diagnosis of deep vein thrombosis or pulmonary embolism 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

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