Lower-Extremity Amputation among Patients with Diabetes Rate
Technical Specifications

Prevention Quality Indicators #16 (PQI #16)
AHRQ Quality Indicators™, Version 5.0
March 2015
Area-Level Indicator
Type of Score: Rate

Description

Admissions for any-listed diagnosis of diabetes and any-listed procedure of lower-extremity amputation per 100,000 population, ages 18 years and older. Excludes any-listed diagnosis of traumatic lower-extremity amputation admissions, toe amputation admission (likely to be traumatic), obstetric admissions, and transfers from other institutions.

[NOTE: The software provides the rate per population. However, common practice reports the measure as per 100,000 population. The user must multiply the rate obtained from the software by 100,000 to report admissions per 100,000 population.]

Numerator

Discharges, for patients ages 18 years and older, with any-listed ICD-9-CM procedure codes for lower-extremity amputation and any-listed ICD-9-CM diagnosis codes for diabetes.

ICD-9-CM Lower-extremity amputation procedure codes:

- 8410 LOWER LIMB AMPUTAT NOS
- 8412 AMPUTATION THROUGH FOOT
- 8413 DISARTICULATION OF ANKLE
- 8414 AMPUTAT THROUGH MALLEOLI
- 8415 BELOW KNEE AMPUTAT NEC
- 8416 DISARTICULATION OF KNEE
- 8417 ABOVE KNEE AMPUTATION
- 8418 DISARTICULATION OF HIP

ICD-9-CM Diabetes diagnosis codes:

- 25000 DMI WO CMP NT ST UNCNTRL
- 25001 DMI WO CMP NT ST UNCNTRL
- 25002 DMI WO CMP UNCNTRL
- 25003 DMI WO CMP UNCNTRL
- 25010 DMI KETO NT ST UNCNTRL
- 25011 DMI KETO NT ST UNCNTRL
- 25012 DMI KETOACD UNCONTROLD
- 25013 DMI KETOACD UNCONTROLD
- 25020 DMI HPRSM NT ST UNCNTRL
- 25021 DMI HPRSM NT ST UNCNTRL
- 25022 DMI HPROSMLR UNCONTROLD
- 25023 DMI HPROSMLR UNCONTROLD
- 25030 DMI O CM NT ST UNCNTRL
- 25031 DMI O CM NT ST UNCNTRL
- 25050 DMI OPTH NT ST UNCNTRL
- 25051 DMI OPTH NT ST UNCNTRL
- 25052 DMI OPTH UNCNTRL
- 25053 DMI OPTH UNCNTRL
- 25060 DMI NEURO NT ST UNCNTRL
- 25061 DMI NEURO NT ST UNCNTRL
- 25062 DMI NEURO UNCNTRL
- 25063 DMI NEURO UNCNTRL
- 25070 DMI CIRC NT ST UNCNTRL
- 25071 DMI CIRC NT ST UNCNTRL
- 25072 DMI CIRC UNCNTRL
- 25073 DMI CIRC UNCNTRL
- 25080 DMI OTH NT ST UNCNTRL
- 25081 DMI OTH NT ST UNCNTRL
Exclude cases:
- with any-listed ICD-9-CM diagnosis codes for traumatic amputation of the lower extremity
- with any-listed ICD-9-CM procedure codes for toe amputation
- transfer from a hospital (different facility)
- transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)
- transfer from another health care facility
- MDC 14 (pregnancy, childbirth, and puerperium)
- with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

See Prevention Quality Indicators Appendices:
- Appendix A – Admission Codes for Transfers

ICD-9-CM Traumatic amputation of the lower extremity diagnosis codes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8950</td>
<td>AMPUTATION TOE</td>
</tr>
<tr>
<td>8951</td>
<td>AMPUTATION TOE-COMPLICAT</td>
</tr>
<tr>
<td>8960</td>
<td>AMPUTATION FOOT, UNILAT</td>
</tr>
<tr>
<td>8961</td>
<td>AMPUT FOOT, UNILAT-COMPL</td>
</tr>
<tr>
<td>8962</td>
<td>AMPUTATION FOOT, BILAT</td>
</tr>
<tr>
<td>8963</td>
<td>AMPUTAT FOOT, BILAT-COMP</td>
</tr>
<tr>
<td>8970</td>
<td>AMPUT BELOW KNEE, UNILAT</td>
</tr>
<tr>
<td>8971</td>
<td>AMPUTAT BK, UNILAT-COMPL</td>
</tr>
<tr>
<td>8972</td>
<td>AMPUT ABOVE KNEE, UNILAT</td>
</tr>
<tr>
<td>8973</td>
<td>AMPUT ABV KN, UNIL-COMPL</td>
</tr>
<tr>
<td>8974</td>
<td>AMPUT LEG, UNILAT NOS</td>
</tr>
<tr>
<td>8975</td>
<td>AMPUT LEG, UNIL NOS-COMP</td>
</tr>
<tr>
<td>8976</td>
<td>AMPUTATION LEG, BILAT</td>
</tr>
<tr>
<td>8977</td>
<td>AMPUTAT LEG, BILAT-COMPL</td>
</tr>
</tbody>
</table>

ICD-9-CM Toe amputation procedure code:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8411</td>
<td>TOE AMPUTAION</td>
</tr>
</tbody>
</table>

**Denominator**

Population ages 18 years and older in metropolitan area† or county. Discharges in the numerator are assigned to the denominator based on the metropolitan area or county of the patient residence, not the metropolitan area or county of the hospital where the discharge occurred.‡

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† The term “metropolitan area” (MA) was adopted by the U.S. Census in 1990 and referred collectively to metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs), and primary metropolitan statistical areas (PMSAs). In addition, “area” could refer to either 1) FIPS county, 2) modified FIPS county, 3) 1999 OMB Metropolitan Statistical Area, or 4) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the QI software.

‡ The denominator can be specified with the diabetic population only and calculated with the SAS QI Software Version 4.5 through the condition-specific denominator at the state-level feature.