Rate of Lower-Extremity Amputation Among Patients With Diabetes

Prevention Quality Indicators #16
Technical Specifications
Area-Level Indicator
AHRQ Quality Indicators, Version 4.3, August 2011
(Revised October, 2011)

Numerator

All discharges of age 18 years and older with ICD-9-CM procedure code for lower-extremity amputation and diagnosis code of diabetes in any field.

ICD-9-CM Lower-extremity amputation procedure codes:
8410 LOWER LIMB AMPUTAT NOS
8411 TOE AMPUTATION
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
8419 HINDQUARTER AMPUTATION

ICD-9-CM Diabetes diagnosis codes:
25000 DMII WO CMP NT ST UNCNTRL
25001 DMI WO CMP NT ST UNCNTRLD
25002 DMII WO CMP UNCNTRL
25003 DMI WO CMP UNCNTRLD
25010 DMII KETO NT ST UNCNTRLD
25011 DMI KETO NT ST UNCNTRLD
25012 DMII KETOACD UNCONTROLD
25013 DMI KETOACD UNCONTROLD
25020 DMI HPRSM NT ST UNCNTRL
25021 DMI HPRSM NT ST UNCNTRLD
25022 DMI HPROSMLR UNCONTROLD
25023 DMI HPROSMLR UNCONTROLD
25030 DMI O CM NT ST UNCNTRL
25031 DMI O CM NT ST UNCNTRLD
25032 DMII OTH COMA UNCONTROLD
25033 DMI OTH COMA UNCONTROLD
25040 DMI RENL NT ST UNCNTRL
25041 DMI RENL NT ST UNCNTRLD
25042 DMII RENAL UNCNTRL
25043 DMI RENAL UNCNTRL
25050 DMI OPHTH NT ST UNCNTRLD
25051 DMI OPHTH NT ST UNCNTRLD
25052 DMI OPHTH UNCNTRLD
25053 DMI OPHTH UNCNTRLD
25060 DMI NEURO NT ST UNCNTRL
25061 DMI NEURO NT ST UNCNTRLD
25062 DMI NEURO UNCNTRLD
25063 DMI NEURO UNCNTRLD
25070 DMI CIRC NT ST UNCNTRL
25071 DMI CIRC NT ST UNCNTRLD
25072 DMI CIRC UNCNTRLD
25073 DMI CIRC UNCNTRLD
25080 DMI OTH NT ST UNCNTRL
25081 DMI OTH NT ST UNCNTRLD
25082 DMI OTH UNCNTRLD
25083 DMI OTH UNCNTRLD
25090 DMI UNSPF NT ST UNCNTRL
25091 DMI UNSPF NT ST UNCNTRLD
25092 DMI UNSPF UNCNTRLD
25093 DMI UNSPF UNCNTRLD

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

Exclude cases:
• 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 any diagnosis of traumatic amputation of the lower extremity
with a toe amputation procedure
• with missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing), county (PSTCO=missing)

ICD-9-CM Trauma amputation of lower extremity diagnosis codes:

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

ICD-9-CM Trauma procedure code:

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

Denominator

Discharges in the numerator are assigned to the denominator based on the Metro Area\(^1\) or county of the patient residence, not the Metro Area or county of the hospital where the discharge occurred. \(^2\)

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\(^1\) 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 3) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the QI software.

\(^2\) The denominator can be specified with the diabetic population only using the QI SAS software’s feature for calculating the condition-specific denominator at the state level.