

# 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	8415	BELOW KNEE AMPUTAT NEC
8411	TOE AMPUTATION	8416	DISARTICULATION OF KNEE
8412	AMPUTATION THROUGH FOOT	8417	ABOVE KNEE AMPUTATION
8413	DISARTICULATION OF ANKLE	8418	DISARTICULATION OF HIP
8414	AMPUTAT THROUGH MALLEOLI	8419	HINDQUARTER AMPUTATION

#### ICD-9-CM Diabetes diagnosis codes:

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

8950	AMPUTATION TOE	8971	AMPUTAT BK, UNILAT-COMPL
8951	AMPUTATION TOE-COMPLICAT	8972	AMPUT ABOVE KNEE, UNILAT
8960	AMPUTATION FOOT, UNILAT	8973	AMPUT ABV KN, UNIL-COMPL
8961	AMPUT FOOT, UNILAT-COMPL	8974	AMPUTAT LEG, UNILAT NOS
8962	AMPUTATION FOOT, BILAT	8975	AMPUT LEG, UNIL NOS-COMP
8963	AMPUTAT FOOT, BILAT-COMP	8976	AMPUTATION LEG, BILAT
8970	AMPUT BELOW KNEE, UNILAT	8977	AMPUTAT LEG, BILAT-COMPL

**ICD-9-CM Trauma procedure code:**

8411 TOE AMPUTATION

## Denominator

Discharges in the numerator are assigned to the denominator based on the Metro Area<sup>1</sup> or county of the patient residence, not the Metro Area or county of the hospital where the discharge occurred.<sup>2</sup>

---

<sup>1</sup> 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.

<sup>2</sup> 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.