

Rate of Lower-Extremity Amputation Among Patients With Diabetes

Prevention Quality Indicators #16 Technical Specifications

Area-Level Indicator

AHRQ Quality Indicators, Version 4.4, March 2012

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

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), principal diagnosis (DX1=missing), or county (PSTCO=missing)

See *Prevention Quality Indicators Appendices*:

- Appendix A – Admission Codes for Transfers

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 Area¹ or county of the patient residence, not the Metro Area or county of the hospital where the discharge occurred.²

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 and calculated with the QI SAS software through the condition-specific denominator at the state-level feature.