



AHRQ Quality Indicators™ (AHRQ QI™) ICD-10-CM/PCS Specification Version 6.0

Prevention Quality Indicator 16 (PQI 16) Lower-Extremity Amputation Among Patients with Diabetes Rate

July 2016

Area-Level Indicator

Type of Score: Rate

Prepared by:

Agency for Healthcare Research and Quality

U.S. Department of Health and Human Services

www.qualityindicators.ahrq.gov

DESCRIPTION

Admissions for any-listed diagnosis of diabetes and any-listed procedure of lower-extremity amputation (except toe amputations) per 100,000 population, ages 18 years and older. Excludes any-listed diagnosis of traumatic lower-extremity amputation admissions, 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-10-PCS procedure codes for lower-extremity amputation and any-listed ICD-10-CM diagnosis codes for diabetes.

Lower-extremity amputation procedure codes: (ACSLEAP)

0Y620ZZ Detachment at Right Hindquarter, Open Approach	0Y6M0Z5 Detachment at Right Foot, Complete 2nd Ray, Open Approach
0Y630ZZ Detachment at Left Hindquarter, Open Approach	0Y6M0Z6 Detachment at Right Foot, Complete 3rd Ray, Open Approach
0Y640ZZ Detachment at Bilateral Hindquarter, Open Approach	0Y6M0Z7 Detachment at Right Foot, Complete 4th Ray, Open Approach
0Y670ZZ Detachment at Right Femoral Region, Open Approach	0Y6M0Z8 Detachment at Right Foot, Complete 5th Ray, Open Approach
0Y680ZZ Detachment at Left Femoral Region, Open Approach	0Y6M0Z9 Detachment at Right Foot, Partial 1st Ray, Open Approach
0Y6C0Z1 Detachment at Right Upper Leg, High, Open Approach	0Y6M0ZB Detachment at Right Foot, Partial 2nd Ray, Open Approach
0Y6C0Z2 Detachment at Right Upper Leg, Mid, Open Approach	0Y6M0ZC Detachment at Right Foot, Partial 3rd Ray, Open Approach
0Y6C0Z3 Detachment at Right Upper Leg, Low, Open Approach	0Y6M0ZD Detachment at Right Foot, Partial 4th Ray, Open Approach
0Y6D0Z1 Detachment at Left Upper Leg, High, Open Approach	0Y6M0ZF Detachment at Right Foot, Partial 5th Ray, Open Approach
0Y6D0Z2 Detachment at Left Upper Leg, Mid, Open Approach	0Y6N0Z0 Detachment at Left Foot, Complete, Open Approach
0Y6D0Z3 Detachment at Left Upper Leg, Low, Open Approach	0Y6N0Z4 Detachment at Left Foot, Complete 1st Ray, Open Approach
0Y6F0ZZ Detachment at Right Knee Region, Open Approach	0Y6N0Z5 Detachment at Left Foot, Complete 2nd Ray, Open Approach
0Y6G0ZZ Detachment at Left Knee Region, Open Approach	0Y6N0Z6 Detachment at Left Foot, Complete 3rd Ray, Open Approach
0Y6H0Z1 Detachment at Right Lower Leg, High, Open Approach	0Y6N0Z7 Detachment at Left Foot, Complete 4th Ray, Open Approach
0Y6H0Z2 Detachment at Right Lower Leg, Mid, Open Approach	0Y6N0Z8 Detachment at Left Foot, Complete 5th Ray, Open Approach
0Y6H0Z3 Detachment at Right Lower Leg, Low, Open Approach	0Y6N0Z9 Detachment at Left Foot, Partial 1st Ray, Open Approach

0Y6J0Z1	Detachment at Left Lower Leg, High, Open Approach	0Y6N0ZB	Detachment at Left Foot, Partial 2nd Ray, Open Approach
0Y6J0Z2	Detachment at Left Lower Leg, Mid, Open Approach	0Y6N0ZC	Detachment at Left Foot, Partial 3rd Ray, Open Approach
0Y6J0Z3	Detachment at Left Lower Leg, Low, Open Approach	0Y6N0ZD	Detachment at Left Foot, Partial 4th Ray, Open Approach
0Y6M0Z0	Detachment at Right Foot, Complete, Open Approach	0Y6N0ZF	Detachment at Left Foot, Partial 5th Ray, Open Approach
0Y6M0Z4	Detachment at Right Foot, Complete 1st Ray, Open Approach		

Diabetes diagnosis codes: (ACSLEAD)

E1010	Type 1 diabetes mellitus with ketoacidosis without coma	E1144	Type 2 diabetes mellitus with diabetic amyotrophy
E1011	Type 1 diabetes mellitus with ketoacidosis with coma	E1149	Type 2 diabetes mellitus with other diabetic neurological complication
E1021	Type 1 diabetes mellitus with diabetic nephropathy	E1151	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene
E1022	Type 1 diabetes mellitus with diabetic chronic kidney disease	E1152	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E1029	Type 1 diabetes mellitus with other diabetic kidney complication	E1159	Type 2 diabetes mellitus with other circulatory complications
E10311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	E11610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy
E10319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	E11618	Type 2 diabetes mellitus with other diabetic arthropathy
E10321	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	E11620	Type 2 diabetes mellitus with diabetic dermatitis
E10329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	E11621	Type 2 diabetes mellitus with foot ulcer
E10331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	E11622	Type 2 diabetes mellitus with other skin ulcer

E10339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	E11628	Type 2 diabetes mellitus with other skin complications
E10341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	E11630	Type 2 diabetes mellitus with periodontal disease
E10349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	E11638	Type 2 diabetes mellitus with other oral complications
E10351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema	E11641	Type 2 diabetes mellitus with hypoglycemia with coma
E10359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema	E11649	Type 2 diabetes mellitus with hypoglycemia without coma
E1036	Type 1 diabetes mellitus with diabetic cataract	E1165	Type 2 diabetes mellitus with hyperglycemia
E1039	Type 1 diabetes mellitus with other diabetic ophthalmic complication	E1169	Type 2 diabetes mellitus with other specified complication
E1040	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	E118	Type 2 diabetes mellitus with unspecified complications
E1041	Type 1 diabetes mellitus with diabetic mononeuropathy	E119	Type 2 diabetes mellitus without complications
E1042	Type 1 diabetes mellitus with diabetic polyneuropathy	E1300	Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma
E1043	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy	E1301	Other specified diabetes mellitus with hyperosmolarity with coma
E1044	Type 1 diabetes mellitus with diabetic amyotrophy	E1310	Other specified diabetes mellitus with ketoacidosis without coma
E1049	Type 1 diabetes mellitus with other diabetic neurological complication	E1311	Other specified diabetes mellitus with ketoacidosis with coma
E1051	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	E1321	Other specified diabetes mellitus with diabetic nephropathy
E1052	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	E1322	Other specified diabetes mellitus with diabetic chronic kidney disease

E1059	Type 1 diabetes mellitus with other circulatory complications	E1329	Other specified diabetes mellitus with other diabetic kidney complication
E10610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	E13311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema
E10618	Type 1 diabetes mellitus with other diabetic arthropathy	E13319	Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema
E10620	Type 1 diabetes mellitus with diabetic dermatitis	E13321	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema
E10621	Type 1 diabetes mellitus with foot ulcer	E13329	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema
E10622	Type 1 diabetes mellitus with other skin ulcer	E13331	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema
E10628	Type 1 diabetes mellitus with other skin complications	E13339	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema
E10630	Type 1 diabetes mellitus with periodontal disease	E13341	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema
E10638	Type 1 diabetes mellitus with other oral complications	E13349	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema
E10641	Type 1 diabetes mellitus with hypoglycemia with coma	E13351	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema
E10649	Type 1 diabetes mellitus with hypoglycemia without coma	E13359	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema
E1065	Type 1 diabetes mellitus with hyperglycemia	E1336	Other specified diabetes mellitus with diabetic cataract
E1069	Type 1 diabetes mellitus with other specified complication	E1339	Other specified diabetes mellitus with other diabetic ophthalmic complication
E108	Type 1 diabetes mellitus with unspecified complications	E1340	Other specified diabetes mellitus with diabetic neuropathy, unspecified
E109	Type 1 diabetes mellitus without complications	E1341	Other specified diabetes mellitus with diabetic mononeuropathy

E1100	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma	E1342	Other specified diabetes mellitus with diabetic polyneuropathy
E1101	Type 2 diabetes mellitus with hyperosmolarity with coma	E1343	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy
E1121	Type 2 diabetes mellitus with diabetic nephropathy	E1344	Other specified diabetes mellitus with diabetic amyotrophy
E1122	Type 2 diabetes mellitus with diabetic chronic kidney disease	E1349	Other specified diabetes mellitus with other diabetic neurological complication
E1129	Type 2 diabetes mellitus with other diabetic kidney complication	E1351	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene
E11311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema	E1352	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene
E11319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema	E1359	Other specified diabetes mellitus with other circulatory complications
E11321	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	E13610	Other specified diabetes mellitus with diabetic neuropathic arthropathy
E11329	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	E13618	Other specified diabetes mellitus with other diabetic arthropathy
E11331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	E13620	Other specified diabetes mellitus with diabetic dermatitis
E11339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	E13621	Other specified diabetes mellitus with foot ulcer
E11341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	E13622	Other specified diabetes mellitus with other skin ulcer
E11349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	E13628	Other specified diabetes mellitus with other skin complications
E11351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema	E13630	Other specified diabetes mellitus with periodontal disease
E11359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema	E13638	Other specified diabetes mellitus with other oral complications

E1136	Type 2 diabetes mellitus with diabetic cataract	E13641	Other specified diabetes mellitus with hypoglycemia with coma
E1139	Type 2 diabetes mellitus with other diabetic ophthalmic complication	E13649	Other specified diabetes mellitus with hypoglycemia without coma
E1140	Type 2 diabetes mellitus with diabetic neuropathy, unspecified	E1365	Other specified diabetes mellitus with hyperglycemia
E1141	Type 2 diabetes mellitus with diabetic mononeuropathy	E1369	Other specified diabetes mellitus with other specified complication
E1142	Type 2 diabetes mellitus with diabetic polyneuropathy	E138	Other specified diabetes mellitus with unspecified complications
E1143	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy	E139	Other specified diabetes mellitus without complications

NUMERATOR EXCLUSIONS

Exclude cases:

- with any-listed ICD-10-CM diagnosis codes for traumatic amputation of the lower extremity
- 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)

[Appendix A – Admission Codes for Transfers](#)***Traumatic amputation of the lower extremity diagnosis codes: (ACLEA2D)***

S78011A	Complete traumatic amputation at right hip joint, initial encounter	S98011A	Complete traumatic amputation of right foot at ankle level, initial encounter
S78012A	Complete traumatic amputation at left hip joint, initial encounter	S98012A	Complete traumatic amputation of left foot at ankle level, initial encounter
S78019A	Complete traumatic amputation at unspecified hip joint, initial encounter	S98019A	Complete traumatic amputation of unspecified foot at ankle level, initial encounter
S78021A	Partial traumatic amputation at right hip joint, initial encounter	S98021A	Partial traumatic amputation of right foot at ankle level, initial encounter
S78022A	Partial traumatic amputation at left hip joint, initial encounter	S98022A	Partial traumatic amputation of left foot at ankle level, initial encounter
S78029A	Partial traumatic amputation at unspecified hip joint, initial encounter	S98029A	Partial traumatic amputation of unspecified foot at ankle level, initial encounter
S78111A	Complete traumatic amputation at level between right hip and knee, initial encounter	S98111A	Complete traumatic amputation of right great toe, initial encounter
S78112A	Complete traumatic amputation at level between left hip and knee, initial encounter	S98112A	Complete traumatic amputation of left great toe, initial encounter
S78119A	Complete traumatic amputation at level between unspecified hip and knee, initial encounter	S98119A	Complete traumatic amputation of unspecified great toe, initial encounter

S78121A	Partial traumatic amputation at level between right hip and knee, initial encounter	S98121A	Partial traumatic amputation of right great toe, initial encounter
S78122A	Partial traumatic amputation at level between left hip and knee, initial encounter	S98122A	Partial traumatic amputation of left great toe, initial encounter
S78129A	Partial traumatic amputation at level between unspecified hip and knee, initial encounter	S98129A	Partial traumatic amputation of unspecified great toe, initial encounter
S78911A	Complete traumatic amputation of right hip and thigh, level unspecified, initial encounter	S98131A	Complete traumatic amputation of one right lesser toe, initial encounter
S78912A	Complete traumatic amputation of left hip and thigh, level unspecified, initial encounter	S98132A	Complete traumatic amputation of one left lesser toe, initial encounter
S78919A	Complete traumatic amputation of unspecified hip and thigh, level unspecified, initial encounter	S98139A	Complete traumatic amputation of one unspecified lesser toe, initial encounter
S78921A	Partial traumatic amputation of right hip and thigh, level unspecified, initial encounter	S98141A	Partial traumatic amputation of one right lesser toe, initial encounter
S78922A	Partial traumatic amputation of left hip and thigh, level unspecified, initial encounter	S98142A	Partial traumatic amputation of one left lesser toe, initial encounter
S78929A	Partial traumatic amputation of unspecified hip and thigh, level unspecified, initial encounter	S98149A	Partial traumatic amputation of one unspecified lesser toe, initial encounter
S88011A	Complete traumatic amputation at knee level, right lower leg, initial encounter	S98211A	Complete traumatic amputation of two or more right lesser toes, initial encounter
S88012A	Complete traumatic amputation at knee level, left lower leg, initial encounter	S98212A	Complete traumatic amputation of two or more left lesser toes, initial encounter
S88019A	Complete traumatic amputation at knee level, unspecified lower leg, initial encounter	S98219A	Complete traumatic amputation of two or more unspecified lesser toes, initial encounter
S88021A	Partial traumatic amputation at knee level, right lower leg, initial encounter	S98221A	Partial traumatic amputation of two or more right lesser toes, initial encounter
S88022A	Partial traumatic amputation at knee level, left lower leg, initial encounter	S98222A	Partial traumatic amputation of two or more left lesser toes, initial encounter

S88029A	Partial traumatic amputation at knee level, unspecified lower leg, initial encounter	S98229A	Partial traumatic amputation of two or more unspecified lesser toes, initial encounter
S88111A	Complete traumatic amputation at level between knee and ankle, right lower leg, initial encounter	S98311A	Complete traumatic amputation of right midfoot, initial encounter
S88112A	Complete traumatic amputation at level between knee and ankle, left lower leg, initial encounter	S98312A	Complete traumatic amputation of left midfoot, initial encounter
S88119A	Complete traumatic amputation at level between knee and ankle, unspecified lower leg, initial encounter	S98319A	Complete traumatic amputation of unspecified midfoot, initial encounter
S88121A	Partial traumatic amputation at level between knee and ankle, right lower leg, initial encounter	S98321A	Partial traumatic amputation of right midfoot, initial encounter
S88122A	Partial traumatic amputation at level between knee and ankle, left lower leg, initial encounter	S98322A	Partial traumatic amputation of left midfoot, initial encounter
S88129A	Partial traumatic amputation at level between knee and ankle, unspecified lower leg, initial encounter	S98329A	Partial traumatic amputation of unspecified midfoot, initial encounter
S88911A	Complete traumatic amputation of right lower leg, level unspecified, initial encounter	S98911A	Complete traumatic amputation of right foot, level unspecified, initial encounter
S88912A	Complete traumatic amputation of left lower leg, level unspecified, initial encounter	S98912A	Complete traumatic amputation of left foot, level unspecified, initial encounter
S88919A	Complete traumatic amputation of unspecified lower leg, level unspecified, initial encounter	S98919A	Complete traumatic amputation of unspecified foot, level unspecified, initial encounter
S88921A	Partial traumatic amputation of right lower leg, level unspecified, initial encounter	S98921A	Partial traumatic amputation of right foot, level unspecified, initial encounter
S88922A	Partial traumatic amputation of left lower leg, level unspecified, initial encounter	S98922A	Partial traumatic amputation of left foot, level unspecified, initial encounter
S88929A	Partial traumatic amputation of unspecified lower leg, level unspecified, initial encounter	S98929A	Partial traumatic amputation of unspecified foot, level unspecified, initial encounter

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.‡

† 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 through the condition-specific denominator at the state-level feature.