

## 2016 MEASURE INFORMATION ABOUT THE HOSPITAL ADMISSIONS FOR ACUTE AND CHRONIC AMBULATORY CARE-SENSITIVE CONDITION (ACSC) COMPOSITE MEASURES, CALCULATED FOR THE 2018 VALUE-BASED PAYMENT MODIFIER PROGRAM

### A. Measure Name

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures:

- CMS-1: Acute Conditions Composite
- CMS-2: Chronic Conditions Composite

### B. Measure Description

The Acute Conditions Composite and Chronic Conditions Composite measures are the risk-adjusted rates at which Medicare beneficiaries are hospitalized for an established set of acute and chronic ACSCs, respectively, that are potentially preventable given appropriate primary and preventive care. The measures apply to solo practitioners and groups, as identified by their Medicare Taxpayer Identification Number (TIN).

The measures are adapted from the area-level Prevention Quality Indicators (PQIs),<sup>1</sup> which were developed by the Agency for Healthcare Research and Quality (AHRQ) and include measures of potentially avoidable hospitalizations.

### C. Rationale

High rates of hospitalization for these ACSCs in a defined population of beneficiaries could indicate that the beneficiaries are not receiving high-quality ambulatory care. Therefore, measuring these outcomes can provide clear, actionable information on how TINs could improve the care they provide to their beneficiaries.

A TIN's performance on the Acute Conditions and Chronic Conditions ACSC Composite measures would improve if its attributed beneficiaries were hospitalized less frequently for ACSCs. A lower measure performance rate may signify that the TIN is providing better primary and preventive care and coordinating more effectively with other TINs in the continuum of care. Information on TINs' performance on these measures is included in the Annual Quality and Resource Use Reports (QRURs) and used in the calculation of the Value-Based Payment Modifier (Value Modifier).

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<sup>1</sup> Version 4.5.

## D. Acute ACSC Composite

### 1. Measure Outcome (Numerator)

The outcome<sup>2</sup> of the Acute Conditions Composite is a hospitalization during the performance period with a primary diagnosis of one or more of the following conditions, as identified by the ICD-10 codes associated with the relevant PQI (see Table 1):

- Dehydration (PQI #10)
- Bacterial Pneumonia (PQI #11)
- Urinary Tract Infection (PQI #12)

### 2. Population Measured (Denominator)

After applying the exclusions outlined in the next section, all beneficiaries attributed to a TIN during the performance period are included in the calculation of the TIN's Acute Conditions Composite. Beneficiaries are attributed to TINs for this measure according to a two-step process described in section G below.

### 3. Exclusions

Beneficiaries are excluded from the population measured if they:

- were under the age of 18
- were enrolled in Medicare Part A only or Medicare Part B only for any month during the performance period
- were enrolled in a private Medicare health plan (for example, a Medicare Advantage HMO/PPO or a Medicare private Fee-for-Service [FFS] plan) for any month during the performance period
- resided outside the United States, its territories, and its possessions during the performance period

Hospitalizations are excluded from the measure outcome if:

- the hospital admission is a transfer from a hospital, skilled nursing facility, intermediate care facility, or other health care facility
- the hospitalization is missing a principal diagnosis

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<sup>2</sup> This measure does not have a traditional numerator and denominator like a process of care measure; see risk adjustment and other resources below for more detail on measure construction.

- there was any diagnosis code during the hospitalization for:
  - sickle-cell anemia or HB-S disease, or any diagnosis or procedure code for immunocompromised state (bacterial pneumonia component measure only)
  - kidney/urinary tract disorder or any diagnosis or procedure code for immunocompromised state (urinary tract infection component measure only)
  - chronic renal failure (dehydration component measure only)

#### 4. Acute ACSC Composite Construction

To create the Acute Conditions Composite, each acute conditions component measure is first risk adjusted (see section G, Methodological Information, for more information). The Acute Conditions Composite measure is then computed as the case-weighted average of its three component risk-adjusted measures, where the case weight is the expected discharges for each acute condition. This is expressed as a rate by multiplying the ratio of actual to expected hospitalizations (from risk adjustment) by the overall rate per 1,000 beneficiaries in the Medicare population. As an example, suppose a TIN has a ratio of actual to expected discharges for dehydration of 1.25, for bacterial pneumonia the ratio is 1.1, and for urinary tract infection the ratio is 1.0. Suppose also that the expected discharges for dehydration for the TIN is 4, for bacterial pneumonia it is 10, and for urinary tract infection it is 2. So the composite ratio of actual to expected discharges is  $1.25*(4/16) + 1.1*(10/16) + 1.0*(2/16) = 1.125$ . If the composite rate across all TINs is 8 per 1,000 beneficiaries, then the Acute ACSC Composite for the TIN is 9 per 1,000 beneficiaries ( $1.125*8$ ).

The number of eligible cases associated with the Acute Conditions Composite measure is the population measured (namely, all beneficiaries attributed to the TIN after applying exclusions).

#### E. Chronic ACSC Composite

##### 1. Measure Outcome (Numerator)

The outcome<sup>3</sup> of the Chronic Conditions Composite is a hospitalization during the performance period with a primary diagnosis<sup>4</sup> of one or more of the following conditions, among attributed beneficiaries with the associated chronic condition:

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<sup>3</sup> This measure does not have a traditional numerator and denominator like a process of care measure; see risk adjustment and other resources below for more detail on measure construction.

<sup>4</sup> The exception to this rule is diabetes. In addition to the principal diagnosis, hospital stays with a lower extremity amputation (evidenced by a procedure code) and a principal or secondary diabetes diagnosis qualify as a potentially avoidable hospitalization.

- Short-Term Complications from Diabetes (PQI #1)
- Long-Term Complications from Diabetes (PQI #3)
- Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults (PQI #5)
- Heart Failure (PQI #8)
- Uncontrolled Diabetes (PQI #14)
- Lower Extremity Amputation among Patients with Diabetes (PQI #16)

The ICD-10 codes that identify these conditions are in Table 1.

## 2. Population Measured (Denominator)

After applying the exclusions outlined in the next section, all beneficiaries who are attributed to a TIN during the performance period and have one or more of the four chronic conditions that constitute the Chronic Conditions Composite are included in the calculation of the TIN's risk-adjusted rate. Beneficiary attribution for the Chronic Conditions Composite follows the same two-step process used for the Acute Conditions Composite.

Patterns of utilization in Medicare claims in either the performance year or prior year identify beneficiaries with one of the four chronic conditions.<sup>5</sup> (Section H contains links to more information on the population included in each measure and the algorithm for identifying chronic conditions.)

## 3. Exclusions

Beneficiaries are excluded from the population measured if they:

- were under the age of 40 for the COPD/asthma component measure or under the age of 18 for any of the other five component measures
- were enrolled in Medicare Part A only or Medicare Part B only for any month during the performance period
- were enrolled in a private Medicare health plan (for example, a Medicare Advantage HMO/PPO or a Medicare private FFS plan) for any month during the performance period
- resided outside the United States, its territories, and its possessions during the performance period

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<sup>5</sup> The algorithm used is based on the most current claims-based guidance for identifying these conditions developed by CMS' Chronic Conditions Data Warehouse (CCW).

Hospitalizations are excluded from the measure outcome if:

- the admission is a transfer from a hospital, skilled nursing facility, intermediate care facility, or other health care facility
- the admission was for cystic fibrosis and anomalies of the respiratory system (COPD/asthma component measure only)
- there was either a diagnosis of traumatic amputation of the lower extremity and/or a toe amputation procedure; or the hospitalization was associated with a pregnancy, childbirth, or puerperium period, as identified by Major Disease Category 14 (lower extremity amputation with diabetes component measure only)
- a cardiac procedure was performed during the hospitalization (heart failure component measure only)

#### **4. Chronic Conditions Composite Construction**

Construction of the Chronic Conditions Composite begins with computing a combined rate of hospitalizations for diabetes from the four diabetes component measures as the number of hospitalizations associated with short-term complications from diabetes, long-term complications, uncontrolled diabetes, or lower extremity amputation per 1,000 attributed beneficiaries with diabetes. This combined diabetes rate, the rate of COPD/asthma hospitalizations per 1,000 beneficiaries with COPD or asthma, and the rate of heart failure hospitalizations per 1,000 beneficiaries with heart failure are then risk adjusted (see section G, Methodological Information, for more information on risk adjustment). The Chronic Conditions Composite is the case-weighted average of these three risk-adjusted, condition-specific measures, where the case weight is the expected discharges for attributed beneficiaries (who were not excluded from the measure population) with the condition associated with the condition-specific rate. This is expressed as a rate by multiplying the ratio of actual to expected hospitalizations (from risk adjustment) by the overall rate per 1,000 beneficiaries with the specified conditions. Please refer to the Acute ACSC Composite Construction section above for an example of this computation.

#### **F. Data Collection Approach and Measure Collection**

The Chronic Conditions Composite and Acute Conditions Composite measures are calculated from Medicare FFS final action claims and Medicare beneficiary enrollment data; no additional data submission by the TIN is required. The measures use one year of inpatient claims to calculate the hospitalization rates. Consistent with Chronic Condition Warehouse (CCW) guidance, two years of data are used to determine which beneficiaries qualify for the heart failure and diabetes measures, but only one year of data is used to determine which beneficiaries qualify for the COPD/asthma measure. When one year of data is used to identify chronic conditions, that year is the performance period. When two years of data are used to identify chronic conditions,

those years are the performance period and the twelve months prior to the start of the performance period. The measure uses Medicare Part A and Part B final action claims from the performance period to attribute beneficiaries to TINs as described in section G (Methodological Information).

## G. Methodological Information

**Attribution.** For the ACSC composite measures, beneficiaries are attributed to a single TIN in a two-step process that takes into account the level of primary care services received (as measured by Medicare-allowed charges from final action claims during the performance period) and the provider specialties that performed these services. Only beneficiaries who received a primary care service during the performance period are considered in attribution. For more information on attribution, please see the document entitled “Two-step Attribution for Claims-based Quality Outcome Measures and Per Capita Cost Measures Included in the Value Modifier,” available at the following URL: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-03-25-Attribution-Fact-Sheet.pdf>.

The following two steps are used to attribute beneficiaries to a TIN for the ACSC composite measures:

- a. A beneficiary is attributed to a TIN in the first step if the beneficiary received more primary care services (as defined in Table 2) from primary care physicians (PCPs), nurse practitioners (NPs), physician assistants (PAs), and clinical nurse specialists (CNSs) in that TIN than in any other TIN.<sup>6</sup>
- b. If a beneficiary did not receive a primary care service from any PCP, NP, PA, or CNS during the performance period, the beneficiary is attributed to a TIN in the second step if the beneficiary received more primary care services from specialist physicians within the TIN than in any other TIN.

**Risk adjustment.** Risk adjustment accounts for beneficiary-level risk factors that can affect quality outcomes, regardless of the care provided. The Chronic Conditions Composite and the Acute Conditions Composite are both calculated from individual components that have been risk adjusted for the age and sex of beneficiaries, by comparing the TIN’s actual rate of potentially avoidable hospitalizations with the rate that would be expected based on the age and sex distribution of the TIN’s attributed beneficiaries (or attributed beneficiaries with the relevant chronic condition for the Chronic Conditions Composite components).

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<sup>6</sup> These specialties are defined using the following CMS specialty codes: general practice (01), family practice (08), internal medicine (11), geriatric medicine (38), nurse practitioner (50), and certified clinical nurse specialist (89), and physician assistant (97).

The first step in the risk-adjustment process is to categorize every Medicare beneficiary into 14 mutually exclusive sex-by-age categories.<sup>7</sup> Then, for each of the six ACSCs, a beneficiary-level logistic regression model estimates the relationship between whether the beneficiary was hospitalized for the condition and the beneficiary's sex-by-age category, weighting beneficiaries by the number of months they had both Medicare Part A and Part B coverage during the performance period. The model's output is an estimated probability for each sex-by-age category that a beneficiary in that category will be hospitalized for the condition. For each category, the expected number of beneficiaries who will be hospitalized for the condition is the product of the category's estimated probability and the number of beneficiaries attributed to the TIN (and with the condition, for chronic ACSCs) in that category.<sup>8</sup> The expected number of hospitalizations for the TIN is the sum of these products across all sex-by-age categories.

A TIN's risk-adjusted rate for each component measure is the ratio of the actual (observed) rate to the expected rate for the TIN, multiplied by the overall rate per 1,000 beneficiaries in the Medicare population (for acute ACSCs), or the rate per 1,000 beneficiaries with the specified condition (for chronic ACSCs). This average is the population condition-specific hospitalization rate per 1,000 Medicare beneficiaries (or per 1,000 beneficiaries with the condition) across all TINs with one or more eligible professional.

## H. For Further Information

- Detailed measure specifications for each PQI measure and composite measures are located at: [http://www.qualityindicators.ahrq.gov/modules/pqi\\_resources.aspx](http://www.qualityindicators.ahrq.gov/modules/pqi_resources.aspx).
- More information about the 2016 QRURs and 2018 Value Modifier is available at: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2016-QRUR.html>.
- More information on identifying beneficiaries with the chronic conditions who are included in the Chronic Conditions Composite is available at the following URL. Please copy and paste this link into your internet browser.  
[https://www.ccwdata.org/cs/groups/public/documents/document/ccw\\_chronic\\_cond\\_algos.pdf](https://www.ccwdata.org/cs/groups/public/documents/document/ccw_chronic_cond_algos.pdf)

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<sup>7</sup> The model classifies beneficiaries into one of seven age categories (and separately by sex, for a total of 14 age-sex categories): 0–39, 40–64, 65–69, 70–74, 75–79, 80–84, and 85 or older.

<sup>8</sup> In counting beneficiaries, those with fewer than 12 months of Part A and Part B coverage receive a weight equal to the number of months during the performance period for which they *did* have both Part A and Part B, divided by 12.

## I. Tables

**Table 1. Numerator and exclusion ICD-10 Codes for Prevention Quality Indicators used to identify Acute and Chronic Ambulatory Care-Sensitive Conditions**

PQI		Numerator ICD-10 Codes	Exclusion ICD-10 Codes
PQI #1 Short-Term Complications from Diabetes	E1010	Type 1 diabetes mellitus with ketoacidosis without coma	
	E1011	Type 1 diabetes mellitus with ketoacidosis with coma	
	E10641	Type 1 diabetes mellitus with hypoglycemia with coma	
	E1065	Type 1 diabetes mellitus with hyperglycemia	
	E1100	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	
	E1101	Type 2 diabetes mellitus with hyperosmolarity with coma	
	E11641	Type 2 diabetes mellitus with hypoglycemia with coma	
	E1165	Type 2 diabetes mellitus with hyperglycemia	
PQI #3 Long-Term Complications from Diabetes	E1021	Type 1 diabetes mellitus with diabetic nephropathy	
	E1022	Type 1 diabetes mellitus with diabetic chronic kidney disease	
	E1029	Type 1 diabetes mellitus with other diabetic kidney complication	
	E10311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	
	E10319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	
	E10321	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	
	E10329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	
	E10331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	
	E10339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	
	E10341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	

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PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
E10349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	
E10351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema	
E10359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema	
E1036	Type 1 diabetes mellitus with diabetic cataract	
E1039	Type 1 diabetes mellitus with other diabetic ophthalmic complication	
E1040	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	
E1041	Type 1 diabetes mellitus with diabetic mononeuropathy	
E1042	Type 1 diabetes mellitus with diabetic polyneuropathy	
E1043	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy	
E1044	Type 1 diabetes mellitus with diabetic amyotrophy	
E1049	Type 1 diabetes mellitus with other diabetic neurological complication	
E1051	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	
E1052	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	
E1059	Type 1 diabetes mellitus with other circulatory complications	
E10610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	
E10618	Type 1 diabetes mellitus with other diabetic arthropathy	
E10620	Type 1 diabetes mellitus with diabetic dermatitis	
E10621	Type 1 diabetes mellitus with foot ulcer	
E10622	Type 1 diabetes mellitus with other skin ulcer	
E10628	Type 1 diabetes mellitus with other skin complications	
E10630	Type 1 diabetes mellitus with periodontal disease	
E10638	Type 1 diabetes mellitus with other oral complications	
E1069	Type 1 diabetes mellitus with other specified complication	
E108	Type 1 diabetes mellitus with unspecified complications	

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PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
E1121	Type 2 diabetes mellitus with diabetic nephropathy	
E1122	Type 2 diabetes mellitus with diabetic chronic kidney disease	
E1129	Type 2 diabetes mellitus with other diabetic kidney complication	
E11311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema	
E11319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema	
E11321	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	
E11329	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	
E11331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	
E11339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	
E11341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	
E11349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	
E11351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema	
E11359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema	
E1136	Type 2 diabetes mellitus with diabetic cataract	
E1139	Type 2 diabetes mellitus with other diabetic ophthalmic complication	
E1140	Type 2 diabetes mellitus with diabetic neuropathy, unspecified	
E1141	Type 2 diabetes mellitus with diabetic mononeuropathy	
E1142	Type 2 diabetes mellitus with diabetic polyneuropathy	
E1143	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy	
E1144	Type 2 diabetes mellitus with diabetic amyotrophy	
E1149	Type 2 diabetes mellitus with other diabetic neurological complication	
E1151	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene	

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes		Exclusion ICD-10 Codes	
	E1152	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene		
	E1159	Type 2 diabetes mellitus with other circulatory complications		
	E11610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy		
	E11618	Type 2 diabetes mellitus with other diabetic arthropathy		
	E11620	Type 2 diabetes mellitus with diabetic dermatitis		
	E11621	Type 2 diabetes mellitus with foot ulcer		
	E11622	Type 2 diabetes mellitus with other skin ulcer		
	E11628	Type 2 diabetes mellitus with other skin complications		
	E11630	Type 2 diabetes mellitus with periodontal disease		
	E11638	Type 2 diabetes mellitus with other oral complications		
	E1169	Type 2 diabetes mellitus with other specified complication		
	E118	Type 2 diabetes mellitus with unspecified complications		
PQI#5 COPD or Asthma in Older Adults	J410	Simple chronic bronchitis	E840	Cystic fibrosis with pulmonary manifestations
	J411	Mucopurulent chronic bronchitis	E8411	Meconium ileus in cystic fibrosis
	J418	Mixed simple and mucopurulent chronic bronchitis	E8419	Cystic fibrosis with other intestinal manifestations
	J42	Unspecified chronic bronchitis	E848	Cystic fibrosis with other manifestations
	J430	Unilateral pulmonary emphysema [MacLeod's syndrome]	E849	Cystic fibrosis, unspecified
	J431	Panlobular emphysema	J8483	Surfactant mutations of the lung
	J432	Centrilobular emphysema	J84841	Neuroendocrine cell hyperplasia of infancy
	J438	Other emphysema	J84842	Pulmonary interstitial glycogenosis
	J439	Emphysema, unspecified	J84843	Alveolar capillary dysplasia with vein misalignment
	J440	Chronic obstructive pulmonary disease with acute lower respiratory infection	J84848	Other interstitial lung diseases of childhood
	J441	Chronic obstructive pulmonary disease with (acute) exacerbation	P270	Wilson-Mikity syndrome
	J449	Chronic obstructive pulmonary disease, unspecified	P271	Bronchopulmonary dysplasia originating in the perinatal period
	J470	Bronchiectasis with acute lower respiratory infection	P278	Other chronic respiratory diseases originating in the perinatal period
	J471	Bronchiectasis with (acute) exacerbation	P279	Unspecified chronic respiratory disease originating in the perinatal period

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PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
J479	Bronchiectasis, uncomplicated	Q254 Other congenital malformations of aorta
J200	Acute bronchitis due to Mycoplasma pneumoniae	Q311 Congenital subglottic stenosis
J201	Acute bronchitis due to Hemophilus influenzae	Q312 Laryngeal hypoplasia
J202	Acute bronchitis due to streptococcus	Q313 Laryngocele
J203	Acute bronchitis due to coxsackievirus	Q315 Congenital laryngomalacia
J204	Acute bronchitis due to parainfluenza virus	Q318 Other congenital malformations of larynx
J205	Acute bronchitis due to respiratory syncytial virus	Q319 Congenital malformation of larynx, unspecified
J206	Acute bronchitis due to rhinovirus	Q320 Congenital tracheomalacia
J207	Acute bronchitis due to echovirus	Q321 Other congenital malformations of trachea
J208	Acute bronchitis due to other specified organisms	Q322 Congenital bronchomalacia
J209	Acute bronchitis, unspecified	Q323 Congenital stenosis of bronchus
J40	Bronchitis, not specified as acute or chronic	Q324 Other congenital malformations of bronchus
J4521	Mild intermittent asthma with (acute) exacerbation	Q330 Congenital cystic lung
J4522	Mild intermittent asthma with status asthmaticus	Q331 Accessory lobe of lung
J4531	Mild persistent asthma with (acute) exacerbation	Q332 Sequestration of lung
J4532	Mild persistent asthma with status asthmaticus	Q333 Agenesis of lung
J4541	Moderate persistent asthma with (acute) exacerbation	Q334 Congenital bronchiectasis
J4542	Moderate persistent asthma with status asthmaticus	Q335 Ectopic tissue in lung
J4551	Severe persistent asthma with (acute) exacerbation	Q336 Congenital hypoplasia and dysplasia of lung
J4552	Severe persistent asthma with status asthmaticus	Q338 Other congenital malformations of lung
J45901	Unspecified asthma with (acute) exacerbation	Q339 Congenital malformation of lung, unspecified
J45902	Unspecified asthma with status asthmaticus	Q340 Anomaly of pleura
J45990	Exercise induced bronchospasm	Q341 Congenital cyst of mediastinum
J45991	Cough variant asthma	Q348 Other specified congenital malformations of respiratory system
J45998	Other asthma	Q349 Congenital malformation of respiratory system, unspecified
		Q390 Atresia of esophagus without fistula
		Q391 Atresia of esophagus with tracheo-esophageal fistula
		Q392 Congenital tracheo-esophageal fistula without atresia
		Q393 Congenital stenosis and stricture of esophagus

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PQI	Numerator ICD-10 Codes		Exclusion ICD-10 Codes	
			Q394	Esophageal web
			Q893	Situs inversus
PQI #8 Heart Failure <sup>9</sup>	I0981	Rheumatic heart failure		
	I501	Left ventricular failure		
	I5020	Unspecified systolic (congestive) heart failure		
	I5021	Acute systolic (congestive) heart failure		
	I5022	Chronic systolic (congestive) heart failure		
	I5023	Acute on chronic systolic (congestive) heart failure		
	I5030	Unspecified diastolic (congestive) heart failure		
	I5031	Acute diastolic (congestive) heart failure		
	I5032	Chronic diastolic (congestive) heart failure		
	I5033	Acute on chronic diastolic (congestive) heart failure		
	I5040	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure		
	I5041	Acute combined systolic (congestive) and diastolic (congestive) heart failure		
	I5042	Chronic combined systolic (congestive) and diastolic (congestive) heart failure		
	I5043	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure		
	I509	Heart failure, unspecified		
PQI #10 Dehydration	E860	Dehydration	I120	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease
	E861	Hypovolemia	I1311	Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease
	E869	Volume depletion, unspecified	I132	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease
	E870	Hyperosmolality and hypernatremia	N185	Chronic kidney disease, stage 5
	A080	Rotaviral enteritis	N186	End stage renal disease
	A0811	Acute gastroenteropathy due to Norwalk agent		

<sup>9</sup> PQI #8 uses additional ICD-10 procedure codes to exclude patients that have had cardiac procedures. For more information on these codes, refer to the link in section H of this document for the AHRQ detailed measure specifications.

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PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes		
A0819	Acute gastroenteropathy due to other small round viruses			
A082	Adenoviral enteritis			
A0831	Calicivirus enteritis			
A0832	Astrovirus enteritis			
A0839	Other viral enteritis			
A084	Viral intestinal infection, unspecified			
A088	Other specified intestinal infections			
A09	Infectious gastroenteritis and colitis, unspecified			
K5289	Other specified noninfective gastroenteritis and colitis			
K529	Noninfective gastroenteritis and colitis, unspecified			
N170	Acute kidney failure with tubular necrosis			
N171	Acute kidney failure with acute cortical necrosis			
N172	Acute kidney failure with medullary necrosis			
N178	Other acute kidney failure			
N179	Acute kidney failure, unspecified			
N19	Unspecified kidney failure			
N990	Postprocedural (acute) (chronic) kidney failure			
PQI #11 Bacterial Pneumonia <sup>10</sup>	J13	Pneumonia due to Streptococcus pneumoniae	D5700	Hb-SS disease with crisis, unspecified
	J14	Pneumonia due to Hemophilus influenzae	D5701	Hb-SS disease with acute chest syndrome
	J15211	Pneumonia due to Methicillin susceptible Staphylococcus aureus	D5702	Hb-SS disease with splenic sequestration
	J15212	Pneumonia due to Methicillin resistant Staphylococcus aureus	D571	Sickle-cell disease without crisis
	J153	Pneumonia due to streptococcus, group B	D5720	Sickle-cell/Hb-C disease without crisis
	J154	Pneumonia due to other streptococci	D57211	Sickle-cell/Hb-C disease with acute chest syndrome
	J157	Pneumonia due to Mycoplasma pneumoniae	D57212	Sickle-cell/Hb-C disease with splenic sequestration
	J159	Unspecified bacterial pneumonia	D57219	Sickle-cell/Hb-C disease with crisis, unspecified
	J160	Chlamydial pneumonia	D5740	Sickle-cell thalassemia without crisis
	J168	Pneumonia due to other specified infectious organisms	D57411	Sickle-cell thalassemia with acute chest syndrome

<sup>10</sup> PQI #11 and PQI #12 use additional ICD-10 diagnosis and procedure codes to exclude patients who are immunocompromised. For more information on these codes, refer to the link in section H of this document for the AHRQ detailed measure specifications.

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PQI	Numerator ICD-10 Codes		Exclusion ICD-10 Codes	
	J180	Bronchopneumonia, unspecified organism	D57412	Sickle-cell thalassemia with splenic sequestration
	J181	Lobar pneumonia, unspecified organism	D57419	Sickle-cell thalassemia with crisis, unspecified
	J188	Other pneumonia, unspecified organism	D5780	Other sickle-cell disorders without crisis
	J189	Pneumonia, unspecified organism	D57811	Other sickle-cell disorders with acute chest syndrome
			D57812	Other sickle-cell disorders with splenic sequestration
			D57819	Other sickle-cell disorders with crisis, unspecified
PQI #12 Urinary Tract Infection	N10	Acute tubulo-interstitial nephritis	N110	Nonobstructive reflux-associated chronic pyelonephritis
	N119	Chronic tubulo-interstitial nephritis, unspecified	N111	Chronic obstructive pyelonephritis
	N12	Tubulo-interstitial nephritis, not specified as acute or chronic	N118	Other chronic tubulo-interstitial nephritis
	N151	Renal and perinephric abscess	N119	Chronic tubulo-interstitial nephritis, unspecified
	N159	Renal tubulo-interstitial disease, unspecified	N1370	Vesicoureteral-reflux, unspecified
	N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	N1371	Vesicoureteral-reflux without reflux nephropathy
	N2884	Pyelitis cystica	N13721	Vesicoureteral-reflux with reflux nephropathy without hydroureter, unilateral
	N2885	Pyeloureteritis cystica	N13722	Vesicoureteral-reflux with reflux nephropathy without hydroureter, bilateral
	N2886	Ureteritis cystica	N13729	Vesicoureteral-reflux with reflux nephropathy without hydroureter, unspecified
	N3000	Acute cystitis without hematuria	N13731	Vesicoureteral-reflux with reflux nephropathy with hydroureter, unilateral
	N3001	Acute cystitis with hematuria	N13732	Vesicoureteral-reflux with reflux nephropathy with hydroureter, bilateral
	N3090	Cystitis, unspecified without hematuria	N13739	Vesicoureteral-reflux with reflux nephropathy with hydroureter, unspecified
	N3091	Cystitis, unspecified with hematuria	N139	Obstructive and reflux uropathy, unspecified
	N390	Urinary tract infection, site not specified	Q600	Renal agenesis, unilateral
			Q601	Renal agenesis, bilateral
			Q602	Renal agenesis, unspecified
			Q603	Renal hypoplasia, unilateral
			Q604	Renal hypoplasia, bilateral
			Q605	Renal hypoplasia, unspecified
			Q606	Potter's syndrome
			Q6100	Congenital renal cyst, unspecified
			Q6101	Congenital single renal cyst

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
	Q6102	Congenital multiple renal cysts
	Q6111	Cystic dilatation of collecting ducts
	Q6119	Other polycystic kidney, infantile type
	Q612	Polycystic kidney, adult type
	Q613	Polycystic kidney, unspecified
	Q614	Renal dysplasia
	Q615	Medullary cystic kidney
	Q618	Other cystic kidney diseases
	Q619	Cystic kidney disease, unspecified
	Q620	Congenital hydronephrosis
	Q6210	Congenital occlusion of ureter, unspecified
	Q6211	Congenital occlusion of ureteropelvic junction
	Q6212	Congenital occlusion of ureterovesical orifice
	Q622	Congenital megaureter
	Q6231	Congenital ureterocele, orthotopic
	Q6232	Cecoureterocele
	Q6239	Other obstructive defects of renal pelvis and ureter
	Q624	Agensis of ureter
	Q625	Duplication of ureter
	Q6260	Malposition of ureter, unspecified
	Q6261	Deviation of ureter
	Q6262	Displacement of ureter
	Q6263	Anomalous implantation of ureter
	Q6269	Other malposition of ureter
	Q627	Congenital vesico-uretero-renal reflux
	Q628	Other congenital malformations of ureter
	Q630	Accessory kidney
	Q631	Lobulated, fused and horseshoe kidney
	Q632	Ectopic kidney
	Q633	Hyperplastic and giant kidney
	Q638	Other specified congenital malformations of kidney
	Q639	Congenital malformation of kidney, unspecified
	Q6410	Exstrophy of urinary bladder, unspecified
	Q6411	Supravesical fissure of urinary bladder
	Q6412	Cloacal extrophy of urinary bladder
	Q6419	Other extrophy of urinary bladder
	Q642	Congenital posterior urethral valves
	Q6431	Congenital bladder neck obstruction
	Q6432	Congenital stricture of urethra
	Q6433	Congenital stricture of urinary meatus

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes		Exclusion ICD-10 Codes	
			Q6439	Other atresia and stenosis of urethra and bladder neck
			Q645	Congenital absence of bladder and urethra
			Q646	Congenital diverticulum of bladder
			Q6470	Unspecified congenital malformation of bladder and urethra
			Q6471	Congenital prolapse of urethra
			Q6472	Congenital prolapse of urinary meatus
			Q6473	Congenital urethrorectal fistula
			Q6474	Double urethra
			Q6475	Double urinary meatus
			Q6479	Other congenital malformations of bladder and urethra
			Q648	Other specified congenital malformations of urinary system
			Q649	Congenital malformation of urinary system, unspecified
PQI #14 Uncontrolled Diabetes	E1065	Type 1 diabetes mellitus with hyperglycemia		
	E1165	Type 2 diabetes mellitus with hyperglycemia		
	E10649	Type 1 diabetes mellitus with hypoglycemia without coma		
	E11649	Type 2 diabetes mellitus with hypoglycemia without coma		
PQI #16 Lower Extremity Amputation among Patients with Diabetes	0Y620ZZ	Detachment at Right Hindquarter, Open Approach	S78011A	Complete traumatic amputation at right hip joint, initial encounter
	0Y630ZZ	Detachment at Left Hindquarter, Open Approach	S78012A	Complete traumatic amputation at left hip joint, initial encounter
	0Y640ZZ	Detachment at Bilateral Hindquarter, Open Approach	S78019A	Complete traumatic amputation at unspecified hip joint, initial encounter
	0Y670ZZ	Detachment at Right Femoral Region, Open Approach	S78021A	Partial traumatic amputation at right hip joint, initial encounter
	0Y680ZZ	Detachment at Left Femoral Region, Open Approach	S78022A	Partial traumatic amputation at left hip joint, initial encounter
	0Y6C0Z1	Detachment at Right Upper Leg, High, Open Approach	S78029A	Partial traumatic amputation at unspecified hip joint, initial encounter
	0Y6C0Z2	Detachment at Right Upper Leg, Mid, Open Approach	S78111A	Complete traumatic amputation at level between right hip and knee, initial encounter
	0Y6C0Z3	Detachment at Right Upper Leg, Low, Open Approach	S78112A	Complete traumatic amputation at level between left hip and knee, initial encounter
	0Y6D0Z1	Detachment at Left Upper Leg, High, Open Approach	S78119A	Complete traumatic amputation at level between unspecified hip and knee, initial encounter
	0Y6D0Z2	Detachment at Left Upper Leg, Mid, Open Approach	S78121A	Partial traumatic amputation at level between right hip and knee, initial encounter

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
0Y6D0Z3	Detachment at Left Upper Leg, Low, Open Approach	S78122A Partial traumatic amputation at level between left hip and knee, initial encounter
0Y6F0ZZ	Detachment at Right Knee Region, Open Approach	S78129A Partial traumatic amputation at level between unspecified hip and knee, initial encounter
0Y6G0ZZ	Detachment at Left Knee Region, Open Approach	S78911A Complete traumatic amputation of right hip and thigh, level unspecified, initial encounter
0Y6H0Z1	Detachment at Right Lower Leg, High, Open Approach	S78912A Complete traumatic amputation of left hip and thigh, level unspecified, initial encounter
0Y6H0Z2	Detachment at Right Lower Leg, Mid, Open Approach	S78919A Complete traumatic amputation of unspecified hip and thigh, level unspecified, initial encounter
0Y6H0Z3	Detachment at Right Lower Leg, Low, Open Approach	S78921A Partial traumatic amputation of right hip and thigh, level unspecified, initial encounter
0Y6J0Z1	Detachment at Left Lower Leg, High, Open Approach	S78922A Partial traumatic amputation of left hip and thigh, level unspecified, initial encounter
0Y6J0Z2	Detachment at Left Lower Leg, Mid, Open Approach	S78929A Partial traumatic amputation of unspecified hip and thigh, level unspecified, initial encounter
0Y6J0Z3	Detachment at Left Lower Leg, Low, Open Approach	S88011A Complete traumatic amputation at knee level, right lower leg, initial encounter
0Y6M0Z0	Detachment at Right Foot, Complete, Open Approach	S88012A Complete traumatic amputation at knee level, left lower leg, initial encounter
0Y6M0Z4	Detachment at Right Foot, Complete 1st Ray, Open Approach	S88019A Complete traumatic amputation at knee level, unspecified lower leg, initial encounter
0Y6M0Z5	Detachment at Right Foot, Complete 2nd Ray, Open Approach	S88021A Partial traumatic amputation at knee level, right lower leg, initial encounter
0Y6M0Z6	Detachment at Right Foot, Complete 3rd Ray, Open Approach	S88022A Partial traumatic amputation at knee level, left lower leg, initial encounter
0Y6M0Z7	Detachment at Right Foot, Complete 4th Ray, Open Approach	S88029A Partial traumatic amputation at knee level, unspecified lower leg, initial encounter
0Y6M0Z8	Detachment at Right Foot, Complete 5th Ray, Open Approach	S88111A Complete traumatic amputation at level between knee and ankle, right lower leg, initial encounter
0Y6M0Z9	Detachment at Right Foot, Partial 1st Ray, Open Approach	S88112A Complete traumatic amputation at level between knee and ankle, left lower leg, initial encounter
0Y6M0ZB	Detachment at Right Foot, Partial 2nd Ray, Open Approach	S88119A Complete traumatic amputation at level between knee and ankle, unspecified lower leg, initial encounter
0Y6M0ZC	Detachment at Right Foot, Partial 3rd Ray, Open Approach	S88121A Partial traumatic amputation at level between knee and ankle, right lower leg, initial encounter
0Y6M0ZD	Detachment at Right Foot, Partial 4th Ray, Open Approach	S88122A Partial traumatic amputation at level between knee and ankle, left lower leg, initial encounter

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
0Y6M0ZF	Detachment at Right Foot, Partial 5th Ray, Open Approach	S88129A Partial traumatic amputation at level between knee and ankle, unspecified lower leg, initial encounter
0Y6N0Z0	Detachment at Left Foot, Complete, Open Approach	S88911A Complete traumatic amputation of right lower leg, level unspecified, initial encounter
0Y6N0Z4	Detachment at Left Foot, Complete 1st Ray, Open Approach	S88912A Complete traumatic amputation of left lower leg, level unspecified, initial encounter
0Y6N0Z5	Detachment at Left Foot, Complete 2nd Ray, Open Approach	S88919A Complete traumatic amputation of unspecified lower leg, level unspecified, initial encounter
0Y6N0Z6	Detachment at Left Foot, Complete 3rd Ray, Open Approach	S88921A Partial traumatic amputation of right lower leg, level unspecified, initial encounter
0Y6N0Z7	Detachment at Left Foot, Complete 4th Ray, Open Approach	S88922A Partial traumatic amputation of left lower leg, level unspecified, initial encounter
0Y6N0Z8	Detachment at Left Foot, Complete 5th Ray, Open Approach	S88929A Partial traumatic amputation of unspecified lower leg, level unspecified, initial encounter
0Y6N0Z9	Detachment at Left Foot, Partial 1st Ray, Open Approach	S98011A Complete traumatic amputation of right foot at ankle level, initial encounter
0Y6N0ZB	Detachment at Left Foot, Partial 2nd Ray, Open Approach	S98012A Complete traumatic amputation of left foot at ankle level, initial encounter
0Y6N0ZC	Detachment at Left Foot, Partial 3rd Ray, Open Approach	S98019A Complete traumatic amputation of unspecified foot at ankle level, initial encounter
0Y6N0ZD	Detachment at Left Foot, Partial 4th Ray, Open Approach	S98021A Partial traumatic amputation of right foot at ankle level, initial encounter
0Y6N0ZF	Detachment at Left Foot, Partial 5th Ray, Open Approach	S98022A Partial traumatic amputation of left foot at ankle level, initial encounter
E1010	Type 1 diabetes mellitus with ketoacidosis without coma	S98029A Partial traumatic amputation of unspecified foot at ankle level, initial encounter
E1011	Type 1 diabetes mellitus with ketoacidosis with coma	S98111A Complete traumatic amputation of right great toe, initial encounter
E1021	Type 1 diabetes mellitus with diabetic nephropathy	S98112A Complete traumatic amputation of left great toe, initial encounter
E1022	Type 1 diabetes mellitus with diabetic chronic kidney disease	S98119A Complete traumatic amputation of unspecified great toe, initial encounter
E1029	Type 1 diabetes mellitus with other diabetic kidney complication	S98121A Partial traumatic amputation of right great toe, initial encounter
E10311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	S98122A Partial traumatic amputation of left great toe, initial encounter
E10319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	S98129A Partial traumatic amputation of unspecified great toe, initial encounter
E10321	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	S98131A Complete traumatic amputation of one right lesser toe, initial encounter
E10329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	S98132A Complete traumatic amputation of one left lesser toe, initial encounter

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
E10331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	S98139A Complete traumatic amputation of one unspecified lesser toe, initial encounter
E10339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	S98141A Partial traumatic amputation of one right lesser toe, initial encounter
E10341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	S98142A Partial traumatic amputation of one left lesser toe, initial encounter
E10349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	S98149A Partial traumatic amputation of one unspecified lesser toe, initial encounter
E10351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema	S98211A Complete traumatic amputation of two or more right lesser toes, initial encounter
E10359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema	S98212A Complete traumatic amputation of two or more left lesser toes, initial encounter
E1036	Type 1 diabetes mellitus with diabetic cataract	S98219A Complete traumatic amputation of two or more unspecified lesser toes, initial encounter
E1039	Type 1 diabetes mellitus with other diabetic ophthalmic complication	S98221A Partial traumatic amputation of two or more right lesser toes, initial encounter
E1040	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	S98222A Partial traumatic amputation of two or more left lesser toes, initial encounter
E1041	Type 1 diabetes mellitus with diabetic mononeuropathy	S98229A Partial traumatic amputation of two or more unspecified lesser toes, initial encounter
E1042	Type 1 diabetes mellitus with diabetic polyneuropathy	S98311A Complete traumatic amputation of right midfoot, initial encounter
E1043	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy	S98312A Complete traumatic amputation of left midfoot, initial encounter
E1044	Type 1 diabetes mellitus with diabetic amyotrophy	S98319A Complete traumatic amputation of unspecified midfoot, initial encounter
E1049	Type 1 diabetes mellitus with other diabetic neurological complication	S98321A Partial traumatic amputation of right midfoot, initial encounter
E1051	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	S98322A Partial traumatic amputation of left midfoot, initial encounter
E1052	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	S98329A Partial traumatic amputation of unspecified midfoot, initial encounter
E1059	Type 1 diabetes mellitus with other circulatory complications	S98911A Complete traumatic amputation of right foot, level unspecified, initial encounter
E10610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	S98912A Complete traumatic amputation of left foot, level unspecified, initial encounter
E10618	Type 1 diabetes mellitus with other diabetic arthropathy	S98919A Complete traumatic amputation of unspecified foot, level unspecified, initial encounter
E10620	Type 1 diabetes mellitus with diabetic dermatitis	S98921A Partial traumatic amputation of right foot, level unspecified, initial encounter
E10621	Type 1 diabetes mellitus with foot ulcer	S98922A Partial traumatic amputation of left foot, level unspecified, initial encounter

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
E10622	Type 1 diabetes mellitus with other skin ulcer	S98929A Partial traumatic amputation of unspecified foot, level unspecified, initial encounter
E10628	Type 1 diabetes mellitus with other skin complications	0Y6P0Z0 Detachment at Right 1st Toe, Complete, Open Approach
E10630	Type 1 diabetes mellitus with periodontal disease	0Y6P0Z1 Detachment at Right 1st Toe, High, Open Approach
E10638	Type 1 diabetes mellitus with other oral complications	0Y6P0Z2 Detachment at Right 1st Toe, Mid, Open Approach
E10641	Type 1 diabetes mellitus with hypoglycemia with coma	0Y6P0Z3 Detachment at Right 1st Toe, Low, Open Approach
E10649	Type 1 diabetes mellitus with hypoglycemia without coma	0Y6Q0Z0 Detachment at Left 1st Toe, Complete, Open Approach
E1065	Type 1 diabetes mellitus with hyperglycemia	0Y6Q0Z1 Detachment at Left 1st Toe, High, Open Approach
E1069	Type 1 diabetes mellitus with other specified complication	0Y6Q0Z2 Detachment at Left 1st Toe, Mid, Open Approach
E108	Type 1 diabetes mellitus with unspecified complications	0Y6Q0Z3 Detachment at Left 1st Toe, Low, Open Approach
E109	Type 1 diabetes mellitus without complications	0Y6R0Z0 Detachment at Right 2nd Toe, Complete, Open Approach
E1100	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	0Y6R0Z1 Detachment at Right 2nd Toe, High, Open Approach
E1101	Type 2 diabetes mellitus with hyperosmolarity with coma	0Y6R0Z2 Detachment at Right 2nd Toe, Mid, Open Approach
E1121	Type 2 diabetes mellitus with diabetic nephropathy	0Y6R0Z3 Detachment at Right 2nd Toe, Low, Open Approach
E1122	Type 2 diabetes mellitus with diabetic chronic kidney disease	0Y6S0Z0 Detachment at Left 2nd Toe, Complete, Open Approach
E1129	Type 2 diabetes mellitus with other diabetic kidney complication	0Y6S0Z1 Detachment at Left 2nd Toe, High, Open Approach
E11311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema	0Y6S0Z2 Detachment at Left 2nd Toe, Mid, Open Approach
E11319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema	0Y6S0Z3 Detachment at Left 2nd Toe, Low, Open Approach
E11321	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	0Y6T0Z0 Detachment at Right 3rd Toe, Complete, Open Approach
E11329	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	0Y6T0Z1 Detachment at Right 3rd Toe, High, Open Approach
E11331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	0Y6T0Z2 Detachment at Right 3rd Toe, Mid, Open Approach
E11339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	0Y6T0Z3 Detachment at Right 3rd Toe, Low, Open Approach
E11341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	0Y6U0Z0 Detachment at Left 3rd Toe, Complete, Open Approach

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
E11349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	0Y6U0Z1 Detachment at Left 3rd Toe, High, Open Approach
E11351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema	0Y6U0Z2 Detachment at Left 3rd Toe, Mid, Open Approach
E11359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema	0Y6U0Z3 Detachment at Left 3rd Toe, Low, Open Approach
E1136	Type 2 diabetes mellitus with diabetic cataract	0Y6V0Z0 Detachment at Right 4th Toe, Complete, Open Approach
E1139	Type 2 diabetes mellitus with other diabetic ophthalmic complication	0Y6V0Z1 Detachment at Right 4th Toe, High, Open Approach
E1140	Type 2 diabetes mellitus with diabetic neuropathy, unspecified	0Y6V0Z2 Detachment at Right 4th Toe, Mid, Open Approach
E1141	Type 2 diabetes mellitus with diabetic mononeuropathy	0Y6V0Z3 Detachment at Right 4th Toe, Low, Open Approach
E1142	Type 2 diabetes mellitus with diabetic polyneuropathy	0Y6W0Z0 Detachment at Left 4th Toe, Complete, Open Approach
E1143	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy	0Y6W0Z1 Detachment at Left 4th Toe, High, Open Approach
E1144	Type 2 diabetes mellitus with diabetic amyotrophy	0Y6W0Z2 Detachment at Left 4th Toe, Mid, Open Approach
E1149	Type 2 diabetes mellitus with other diabetic neurological complication	0Y6W0Z3 Detachment at Left 4th Toe, Low, Open Approach
E1151	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene	0Y6X0Z0 Detachment at Right 5th Toe, Complete, Open Approach
E1152	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene	0Y6X0Z1 Detachment at Right 5th Toe, High, Open Approach
E1159	Type 2 diabetes mellitus with other circulatory complications	0Y6X0Z2 Detachment at Right 5th Toe, Mid, Open Approach
E11610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy	0Y6X0Z3 Detachment at Right 5th Toe, Low, Open Approach
E11618	Type 2 diabetes mellitus with other diabetic arthropathy	0Y6Y0Z0 Detachment at Left 5th Toe, Complete, Open Approach
E11620	Type 2 diabetes mellitus with diabetic dermatitis	0Y6Y0Z1 Detachment at Left 5th Toe, High, Open Approach
E11621	Type 2 diabetes mellitus with foot ulcer	0Y6Y0Z2 Detachment at Left 5th Toe, Mid, Open Approach
E11622	Type 2 diabetes mellitus with other skin ulcer	0Y6Y0Z3 Detachment at Left 5th Toe, Low, Open Approach
E11628	Type 2 diabetes mellitus with other skin complications	
E11630	Type 2 diabetes mellitus with periodontal disease	
E11638	Type 2 diabetes mellitus with other oral complications	
E11641	Type 2 diabetes mellitus with hypoglycemia with coma	
E11649	Type 2 diabetes mellitus with hypoglycemia without coma	

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
E1165	Type 2 diabetes mellitus with hyperglycemia	
E1169	Type 2 diabetes mellitus with other specified complication	
E118	Type 2 diabetes mellitus with unspecified complications	
E119	Type 2 diabetes mellitus without complications	
E1300	Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	
E1301	Other specified diabetes mellitus with hyperosmolarity with coma	
E1310	Other specified diabetes mellitus with ketoacidosis without coma	
E1311	Other specified diabetes mellitus with ketoacidosis with coma	
E1321	Other specified diabetes mellitus with diabetic nephropathy	
E1322	Other specified diabetes mellitus with diabetic chronic kidney disease	
E1329	Other specified diabetes mellitus with other diabetic kidney complication	
E13311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema	
E13319	Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema	
E13321	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	
E13329	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	
E13331	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	
E13339	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	
E13341	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	
E13349	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	
E13351	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema	

Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite measures

PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
E13359	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema	
E1336	Other specified diabetes mellitus with diabetic cataract	
E1339	Other specified diabetes mellitus with other diabetic ophthalmic complication	
E1340	Other specified diabetes mellitus with diabetic neuropathy, unspecified	
E1341	Other specified diabetes mellitus with diabetic mononeuropathy	
E1342	Other specified diabetes mellitus with diabetic polyneuropathy	
E1343	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy	
E1344	Other specified diabetes mellitus with diabetic amyotrophy	
E1349	Other specified diabetes mellitus with other diabetic neurological complication	
E1351	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene	
E1352	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene	
E1359	Other specified diabetes mellitus with other circulatory complications	
E13610	Other specified diabetes mellitus with diabetic neuropathic arthropathy	
E13618	Other specified diabetes mellitus with other diabetic arthropathy	
E13620	Other specified diabetes mellitus with diabetic dermatitis	
E13621	Other specified diabetes mellitus with foot ulcer	
E13622	Other specified diabetes mellitus with other skin ulcer	
E13628	Other specified diabetes mellitus with other skin complications	
E13630	Other specified diabetes mellitus with periodontal disease	
E13638	Other specified diabetes mellitus with other oral complications	
E13641	Other specified diabetes mellitus with hypoglycemia with coma	
E13649	Other specified diabetes mellitus with hypoglycemia without coma	
E1365	Other specified diabetes mellitus with hyperglycemia	
E1369	Other specified diabetes mellitus with other specified complication	

PQI	Numerator ICD-10 Codes	Exclusion ICD-10 Codes
E138	Other specified diabetes mellitus with unspecified complications	
E139	Other specified diabetes mellitus without complications	

**Table 2. Healthcare Common Procedure Coding System (HCPCS) primary care service codes**

HCPCS codes	Brief description
99201–99205	New patient, office, or other outpatient visit
99211–99215	Established patient, office, or other outpatient visit
99304–99306	New patient, nursing facility care
99307–99310	Established patient, nursing facility care
99315–99316	Established patient, discharge day management service
99318	New or established patient, other nursing facility service
99324–99328	New patient, domiciliary or rest home visit
99334–99337	Established patient, domiciliary or rest home visit
99339–99340	Established patient, physician supervision of patient (patient not present) in home, domiciliary, or rest home
99341–99345	New patient, home visit
99347–99350	Established patient, home visit
G0402	Initial Medicare visit
G0438	Annual wellness visit, initial
G0439	Annual wellness visit, subsequent
G0463	Hospital outpatient clinic (Electing Teaching Amendment hospitals only)

Note: Labels are approximate. For more details, see the American Medical Association’s Current Procedural Terminology® and the CMS website (<https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/HCPCS-Quarterly-Update.html>).