

ACO # 37 Risk-Standardized Acute Admission Rates for Patients With Heart Failure

Measure Information Form (MIF)

Data Source

- Medicare inpatient claims
- Medicare outpatient claims
- Medicare beneficiary enrollment data
- Accountable Care Organization (ACO) assignment file

Measure Set ID

- ACO #37

Version Number and Effective Date

- Version 2.0, effective 12/31/2015

CMS Approval Date

- 12/31/2015

NQF ID

- N/A; measure under review by the National Quality Forum (NQF) for endorsement.

Date Endorsed

- N/A

Care Setting

- Hospital

Unit of Measurement

- ACO

Measurement Duration

- Calendar Year

Measurement Period

- Calendar Year

Measure Type

- Outcome

Measure Scoring

- Risk-standardized acute admission rate (RSAAR)

Payer Source

- Medicare fee-for-service (FFS)

Improvement Notation

- Lower RSAAR scores indicate better quality.

Measure Steward

- Centers for Medicare & Medicaid Services (CMS)

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- This quality measure was developed for CMS by Yale New Haven Hospital Health Services Corporation Center for Outcomes Research and Evaluation (CORE) in 2014.

Measure Description

- Rate of risk-standardized acute, unplanned hospital admissions among Medicare fee-for-service (FFS) beneficiaries 65 years and older with heart failure who are assigned to the Accountable Care Organization (ACO).

Rationale

The goal of this measure is to evaluate and to improve the quality of care for patients with heart failure cared for by ACOs. These patients account for a significant proportion of Medicare beneficiaries and they experience high morbidity and costs associated with their disease. These patients need efficient, coordinated, and patient-centered care management. They also benefit from provider support and infrastructure that facilitate effective chronic disease management. This measure is focused on hospital admissions for acute illness as the outcome because these admissions are often sentinel events associated with high morbidity as well as physical and emotional stress; they also result in high costs for both the patient and the ACO. Research shows that effective health care can lower the risk of admission for these vulnerable groups of patients.

This measure is intended to incentivize ACOs to provide high-quality, coordinated care that focuses on the whole patient. ACOs were conceptualized and created to achieve the goals of improved care, improved population health, and lower cost. Consistent with this mission, we envision that the measure will incentivize providers participating in ACOs to collaborate to provide the best system of clinical care and to partner with health and non-health related organizations in their communities, as appropriate, to improve the health of their patient population.

Clinical Recommendation Statement

Research shows that effective health care can lower the risk of admission for patients with heart failure [1-4]. For example, efforts to improve coordination and navigation of the healthcare system, along with home-based interventions and exercise-based rehabilitation therapy among patients with heart failure may reduce the risk of hospitalization [1, 5-8].

It is our vision that these measures will illuminate variation among ACOs in hospital admission rates and incentivize ACOs to develop efficient and coordinated chronic disease management strategies that anticipate and respond to patients' needs and preferences. This vision is consistent with ACOs' commitment to deliver patient-centered care that fulfills the goals of the Department of Health and Human Services' National Quality Strategy – improving population health, providing better care, and lowering healthcare costs [9].

References

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9. U.S. Department of Health and Human Services. Multiple chronic conditions—A strategic framework: Optimum health and quality of life for individuals with multiple chronic conditions. December 2010; http://www.hhs.gov/ash/initiatives/mcc/mcc_framework.pdf. Accessed March 20, 2014

Release Notes / Summary of Changes

- This MIF includes only ICD-10 and HCC version 22 codes.

Technical Specifications

- Target Population
ACO-assigned or aligned Medicare beneficiaries with heart failure

Denominator

- Denominator Statement
The target population is ambulatory Medicare FFS beneficiaries aged 65 years and older assigned to the ACO with a diagnosis of heart failure.
- Denominator Details
The targeted patient population is Medicare FFS beneficiaries aged 65 years and older assigned to the ACO during the measurement period with a diagnosis of heart failure. To be included in the cohort, patients must have one inpatient principal discharge diagnosis code of heart failure or two heart failure diagnosis codes in any position (Medicare Part A inpatient/outpatient and Part B Carrier claims) within one year prior to the measurement period. We allowed for prior year claims to define the cohort since there is no specified optimal frequency of follow-up visits among ambulatory, stable patients (i.e., patients without a change in their symptoms may never be hospitalized and may only be seen annually). To be included in the cohort, patients must be enrolled full-time in both Part A and B during the year prior to the measurement period. We excluded patients who were not enrolled full-time in Part A during the measurement period.

Heart failure is defined using the International Classification of Diseases, Tenth Revision, (ICD-10) diagnosis codes identified in Medicare Part A inpatient/outpatient and Part B carrier claims data. Patients excluded from the

cohort are identified using ICD-10 procedure codes in Medicare Part A outpatient claims and with a Medicare Denominator File. The ICD-10 codes that define the cohort are listed in Table 1 and cohort exclusions are listed in Table 2.

Table 1. Denominator Details: ICD-10 Diagnosis Codes Used to Identify Heart Failure Cohort

| ICD-10 Code | Description |
|-------------|--|
| I09.81 | Rheumatic heart failure |
| I11.0 | Hypertensive heart disease with heart failure |
| I13.0 | Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease |
| I13.2 | Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease |
| I50.1 | Left ventricular failure |
| I50.20 | Unspecified systolic (congestive) heart failure |
| I50.21 | Acute systolic (congestive) heart failure |
| I50.22 | Chronic systolic (congestive) heart failure |
| I50.23 | Acute on chronic systolic (congestive) heart failure |
| I50.30 | Unspecified diastolic (congestive) heart failure |
| I50.31 | Acute diastolic (congestive) heart failure |
| I50.32 | Chronic diastolic (congestive) heart failure |
| I50.33 | Acute on chronic diastolic (congestive) heart failure |
| I50.40 | Unspecified combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.41 | Acute combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.42 | Chronic combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.43 | Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.9 | Heart failure, unspecified |

- Denominator Exceptions and Exclusions
 1. Patients with left ventricular assist devices (LVADs).
Rationale: We exclude these patients because while they have a high risk of admission, they are low in prevalence and are clustered among a few ACOs.
 2. Beneficiaries that do not have 12 months continuous enrollment in Medicare Part A and B during the year prior to the measurement year.
Rationale: This data is needed to attribute chronic conditions to beneficiaries.
 3. Beneficiaries that do not have 12 months continuous enrollment in Medicare Part A during the measurement year. Beneficiaries who become deceased during the measurement period are excluded if they do not have continuous enrollment in Medicare Part A until death (i.e. the 12 month requirement is relaxed for these beneficiaries). Beneficiaries with continuous enrollment until death are excluded after the time of death.
Rationale: We exclude these patients to ensure full data availability for outcome assessment (Part A during the measurement year). Beneficiaries with continuous enrollment who become deceased during the year are included only for the time they are alive.
- Denominator Exceptions and Exclusions Details
 1. Patients with LVADs (see Table 2 for codes to identify exclusion).

We identify patients as having an LVAD based on ICD-10 procedure codes in Medicare Part A inpatient/outpatient claims or Part B Carrier claims within one year prior to the measurement year.

Table 2. Risk-Standardized Acute Admission Rates for Patients with Heart Failure: Exclusion Criterion (LVAD)

| ICD-10 Code | Description |
|-------------|--|
| 5A02216 | Assistance with Cardiac Output using Other Pump, Continuous |
| 5A02116 | Assistance with Cardiac Output using Other Pump, Intermittent |
| 02HA0RS | Insertion of Biventricular External Heart Assist System into Heart, Open Approach |
| 02HA3RS | Insertion of Biventricular External Heart Assist System into Heart, Percutaneous Approach |
| 02HA4RS | Insertion of Biventricular External Heart Assist System into Heart, Percutaneous Endoscopic Approach |
| 5A02216 | Assistance with Cardiac Output using Other Pump, Continuous |
| 5A02116 | Assistance with Cardiac Output using Other Pump, Intermittent |
| 02HA0RZ | Insertion of External Heart Assist System into Heart, Open Approach |
| 02HA3RZ | Insertion of External Heart Assist System into Heart, Percutaneous Approach |
| 02HA4RZ | Insertion of External Heart Assist System into Heart, Percutaneous Endoscopic Approach |
| 5A02216 | Assistance with Cardiac Output using Other Pump, Continuous |
| 5A02116 | Assistance with Cardiac Output using Other Pump, Intermittent |
| 02HA0RZ | Insertion of External Heart Assist System into Heart, Open Approach |
| 02HA4RZ | Insertion of External Heart Assist System into Heart, Percutaneous Endoscopic Approach |
| 02HA0QZ | Insertion of Implantable Heart Assist System into Heart, Open Approach |
| 02HA3QZ | Insertion of Implantable Heart Assist System into Heart, Percutaneous Approach |
| 02HA4QZ | Insertion of Implantable Heart Assist System into Heart, Percutaneous Endoscopic Approach |
| 5A0221D | Assistance with Cardiac Output using Impeller Pump, Continuous |
| 5A0211D | Assistance with Cardiac Output using Impeller Pump, Intermittent |
| 5A02216 | Assistance with Cardiac Output using Other Pump, Continuous |
| 5A02216 | Assistance with Cardiac Output using Other Pump, Continuous |
| 5A02116 | Assistance with Cardiac Output using Other Pump, Intermittent |
| 02HA3RZ | Insertion of External Heart Assist System into Heart, Percutaneous Approach |

- Beneficiaries without continuous enrollment in Medicare Part A and B during the year prior to the measurement year. Lack of continuous enrollment in Medicare Part A and B is determined by patient enrollment status in a Medicare Denominator File. The enrollment indicators must be appropriately marked during the year prior to the measurement year.
- Beneficiaries without continuous enrollment in Medicare Part A for the duration of the measurement period (or until death) are excluded. Lack of continuous enrollment in Medicare Part A is determined by patient enrollment status in a Medicare Denominator File. The enrollment indicators must be appropriately marked during the measurement year.

Numerator

- Numerator Statement

The outcome measured for each beneficiary is the number of acute unplanned admissions per 100 person-years at risk for admission. Persons are considered at risk for admission if they are alive, enrolled in FFS Medicare, and not currently admitted.

- Numerator Details

Outcome Definition

The outcome for this measure is the number of acute unplanned admissions per 100 person-years at risk for admission. The outcome includes inpatient admissions to an acute care hospital for any cause during the measurement year, unless an admission is identified as “planned.”

Identification of Planned Admissions

The measure outcome includes only unplanned admissions. Although clinical experts agree that proper care in the ambulatory setting should reduce hospital admissions, variation in planned admissions (such as for elective surgery) does not typically reflect quality differences. We based the planned admission algorithm on CMS's Planned Readmission Algorithm Version 3.0, which CMS originally created to identify planned readmissions for the hospital-wide readmission measure. In brief, the algorithm identifies a short list of always planned admissions (i.e., those where the principal discharge diagnosis is major organ transplant, obstetrical delivery, or maintenance chemotherapy; see Appendix Table PA1 and PA2) as well as those admissions with a potentially planned procedure (e.g., total hip replacement or cholecystectomy; See Appendix Table PA3) AND a non-acute principal discharge diagnosis code (See Appendix Table PA4 for acute diagnoses). Admissions that include potentially planned procedures that might represent complications of ambulatory care, such as cardiac catheterization, are not considered planned. To adapt the algorithm for this measures, we removed from the potentially planned procedure list two procedures, cardiac catheterization and amputation, because the need for these procedures might reflect progression of clinical conditions that potentially could have been managed in the ambulatory setting to avoid admissions for these procedures.

Outcome Attribution

The outcome is attributed to the Accountable Care Organization (ACO) to which the beneficiary is assigned in the Shared Savings Program or aligned in the Pioneer ACO Model.

Stratification or Risk Adjustment

- Stratification: Not applicable. This measure is not stratified.
- Risk Adjustment:

We use a two-level hierarchical negative binomial model to estimate risk-standardized acute, unplanned admissions per 100 person-years at risk for admission. This approach accounts for the clustering of patients within ACOs and variation in sample size.

Our approach to risk adjustment is tailored to and appropriate for a publicly reported outcome measure, as articulated in the American Heart Association (AHA) Scientific Statement, "Standards for Statistical Models Used for Public Reporting of Health Outcomes" [1-2]. The risk-standardization model includes age and 22 clinical variables. We define clinical variables using condition categories (CCs), which are clinically meaningful groupings of ICD-10 diagnosis codes.

Model Variables

The risk-adjustment variables are:

1. Age Categorized (65-70, 70-80, 80-90, 90+)
2. Pulmonary disease (CC 110, 111, 112, 113, 117, 118)
3. Disability/frailty (CC 21, 70, 71, 72, 103, 119, 157, 158, 159, 160, 161, 169, 189, 190)
4. Advanced cardiopulmonary failure (CC 82, 84)
5. Arrhythmia (CC 96, 97)
6. Psychiatric illness/substance abuse (CC 54, 55, 56, 57, 58, 59, 60, 61, 62, 63)
7. Kidney disease (CC 132, 135-140, 141)
8. Dialysis status (CC 134)
9. Advanced cancer (CC 8, 9, 10, 11, 13)
10. High risk cardiovascular conditions (CC 86, 87, 106, 107)
11. Low risk cardiovascular conditions (CC 88, 89, 98, 108, 109)
12. Structural heart disease (CC 91, 92, 93)
13. Dementia (CC 51, 52, 53)

14. Diabetes with complications (CC 17, 18, 19, 122, 123)
15. Gastrointestinal and genitourinary disorders (CC 31, 32, 33, 35, 36, 142, 188)
16. Hematologic diseases (CC 46, 48)
17. Infectious and immunologic disorders (CC 1, 3, 4, 5, 6, 47, 90)
18. Liver disease (CC 27, 28, 29, 30)
19. Neurological disease (CC 50, 64, 68, 74, 75, 76, 77, 78, 79, 80, 81, 99, 100, 101, 102, 104, 105, 167)
20. Pacemaker/cardiac resynchronization therapy/implantable cardiac device (See Appendix Tables 1 and 2 for ICD-10 diagnosis and procedure codes)
21. Iron deficiency anemia (CC 49)
22. Major organ transplant (CC 186)
23. Other organ transplant (CC 187)

Citations

1. Krumholz HM, Brindis RG, Brush JE, et al. Standards for Statistical Models Used for Public Reporting of Health Outcomes: An American Heart Association Scientific Statement From the Quality of Care and Outcomes Research Interdisciplinary Writing Group: Cosponsored by the Council on Epidemiology and Prevention and the Stroke Council Endorsed by the American College of Cardiology Foundation. *Circulation*. 2006; 113 (3): 456-462.
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Sampling

- This is not based on a sample or survey.

Calculation Algorithm

The RSAAR for each ACO is calculated as the number of “predicted” to the number of “expected” admissions per person-year, multiplied by the national rate of admissions per 100 person-years among all ACO beneficiaries with heart failure – i.e., all eligible ACO beneficiaries with heart failure are used in the measure score calculation, and a score is generated for each ACO.

1. Two-level hierarchical statistical models, accounting for clustering of patients within ACOs and patient level characteristics, are estimated. The measure uses a negative binomial model since our outcome is a count of the number of admissions. The first level of the model adjusts for patient factors. The relationship between patient risk factors and the outcome of admission is determined based on the overall sample of patients within ACOs. The second level of the model estimates a random-intercept term that reflects the ACO’s contribution to admission risk, based on its actual admission rate, the performance of other providers with similar case mix, and its sample size. The ACO-specific random intercept is used in the numerator calculation to derive an ACO-specific number of “predicted” admissions per person-year.
2. The expected number of admissions is calculated based on the ACO’s case mix and national average intercept.
3. The predicted number of admissions is calculated based on the ACO’s case mix and the estimated ACO-specific intercept term.
4. The measure score is the ratio of predicted admissions over the expected admissions multiplied by the crude national admission rate among all ACO patients. The predicted to expected ratio of admissions is analogous to an observed/expected ratio, but the numerator accounts for clustering and sample-size variation.
5. We multiply the ratio for each ACO by a constant, the crude national rate of acute, unplanned admissions per 100 person-years at risk for hospitalization, for ease of interpretation (RSAAR).

Appendix Tables

Table 1. Risk-Standardized Acute Admission Rates for Patients with Heart Failure: Risk Adjustment Diagnosis Codes (Pacemaker/Cardiac Resynchronization Therapy/Implantable Cardiac Device)

| ICD-10 Code | ICD-10 Descriptor |
|-------------|---|
| Z45010 | Encounter for checking and testing of cardiac pacemaker |
| Z45018 | Encounter for adjustment and management of other pacemaker |
| Z4502 | Encounter for adjustment and management of automatic implantable cardiac defibrillator |
| Z4509 | Encounter for adjustment and management of cardiac device (Encounter for adjustment and management of other cardiac device) |
| Z950 | Presence of cardiac pacemaker |
| Z95810 | Presence of automatic (implantable) cardiac defibrillator |

Table 2. Risk-Standardized Acute Admission Rates for Patients with Heart Failure: Risk Adjustment Procedure Codes (Pacemaker/Cardiac Resynchronization Therapy/Implantable Cardiac Device)

| ICD-10 Code | ICD-10 Descriptor |
|-------------|---|
| 02H40JZ | Insertion of Pacemaker Lead into Coronary Vein, Open Approach |
| 02H43JZ | Insertion of Pacemaker Lead into Coronary Vein, Percutaneous Approach |
| 02H44JZ | Insertion of Pacemaker Lead into Coronary Vein, Percutaneous Endoscopic Approach |
| 02H60JZ | Insertion of Pacemaker Lead into Right Atrium, Open Approach |
| 02H63JZ | Insertion of Pacemaker Lead into Right Atrium, Percutaneous Approach |
| 02H64JZ | Insertion of Pacemaker Lead into Right Atrium, Percutaneous Endoscopic Approach |
| 02HK0JZ | Insertion of Pacemaker Lead into Right Ventricle, Open Approach |
| 02HK3JZ | Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Approach |
| 02HK4JZ | Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Endoscopic Approach |
| 02HL0JZ | Insertion of Pacemaker Lead into Left Ventricle, Open Approach |
| 02HL3JZ | Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Approach |
| 02HL4JZ | Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Endoscopic Approach |
| 0JH607Z | Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Chest Subcutaneous Tissue |
| 0JH637Z | Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Chest Subcutaneous Tissue |
| 0JH807Z | Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Abdomen Subcutaneous Tissue |
| 02HK0JZ | Insertion of Pacemaker Lead into Right Ventricle, Open Approach |
| 02HK3KZ | Insertion of Defibrillator Lead into Right Ventricle, Percutaneous Approach |
| 02HK4KZ | Insertion of Defibrillator Lead into Right Ventricle, Percutaneous Endoscopic Approach |
| 02HL0KZ | Insertion of Defibrillator Lead into Left Ventricle, Open Approach |
| 02HL3KZ | Insertion of Defibrillator Lead into Left Ventricle, Percutaneous Approach |
| 02HL4KZ | Insertion of Defibrillator Lead into Left Ventricle, Percutaneous Endoscopic Approach |
| 0JH609Z | Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Chest Subcutaneous Ti |
| 0JH639Z | Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Chest Subcutaneous Ti |
| 0JH809Z | Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Abdomen Subcutaneous |
| 0JH839Z | Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Abdomen Subcutaneous |
| 02H43JZ | Insertion of Pacemaker Lead into Coronary Vein, Percutaneous Approach |
| 02H43KZ | Insertion of Defibrillator Lead into Coronary Vein, Percutaneous Approach |
| 02H43KZ | Insertion of Defibrillator Lead into Coronary Vein, Percutaneous Approach |

(continued)

Table 2. Risk-Standardized Acute Admission Rates for Patients with Heart Failure: Risk Adjustment Procedure Codes (Pacemaker/Cardiac Resynchronization Therapy/Implantable Cardiac Device) (continued)

| ICD-10 Code | ICD-10 Descriptor |
|-------------|---|
| 02H43MZ | Insertion of Cardiac Lead into Coronary Vein, Percutaneous Approach |
| 02H43MZ | Insertion of Cardiac Lead into Coronary Vein, Percutaneous Approach |
| 02PA0MZ | Removal of Cardiac Lead from Heart, Open Approach |
| 02PA3MZ | Removal of Cardiac Lead from Heart, Percutaneous Approach |
| 02PAXMZ | Removal of Cardiac Lead from Heart, Percutaneous Endoscopic Approach |
| 0JH607Z | Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Chest Subcutaneous Tissue |
| 0JH637Z | Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Chest Subcutaneous Tissue |
| 0JH637Z | Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Chest Subcutaneous Tissue |
| 0JH807Z | Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Abdomen Subcutaneous Tissue |
| 0JH837Z | Insertion of Cardiac Resynchronization Pacemaker Pulse Generator into Abdomen Subcutaneous Tissue |
| 0JPT0PZ | Removal of Cardiac Rhythm Related Device from Trunk Subcutaneous Tissue and Fascia, Open Approach |
| 0JPT3PZ | Removal of Cardiac Rhythm Related Device from Trunk Subcutaneous Tissue and Fascia, Percutaneous Approach |
| 0JH609Z | Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Chest Subcutaneous Tissue |
| 0JH639Z | Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Chest Subcutaneous Tissue |
| 0JH809Z | Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Abdomen Subcutaneous |
| 0JH839Z | Insertion of Cardiac Resynchronization Defibrillator Pulse Generator into Abdomen Subcutaneous |
| 02H44JZ | Insertion of Pacemaker Lead into Coronary Vein, Percutaneous Endoscopic Approach |
| 02H44MZ | Insertion of Cardiac Lead into Coronary Vein, Percutaneous Endoscopic Approach |
| 02H60JZ | Insertion of Pacemaker Lead into Right Atrium, Open Approach |
| 02H60MZ | Insertion of Cardiac Lead into Right Atrium, Open Approach |
| 02H63JZ | Insertion of Pacemaker Lead into Right Atrium, Percutaneous Approach |
| 02H64JZ | Insertion of Pacemaker Lead into Right Atrium, Percutaneous Endoscopic Approach |
| 02H64MZ | Insertion of Cardiac Lead into Right Atrium, Percutaneous Endoscopic Approach |
| 02H70JZ | Insertion of Pacemaker Lead into Left Atrium, Open Approach |
| 02H70MZ | Insertion of Cardiac Lead into Left Atrium, Open Approach |
| 02H73JZ | Insertion of Pacemaker Lead into Left Atrium, Percutaneous Approach |
| 02H74JZ | Insertion of Pacemaker Lead into Left Atrium, Percutaneous Endoscopic Approach |
| 02H74MZ | Insertion of Cardiac Lead into Left Atrium, Percutaneous Endoscopic Approach |
| 02HK0JZ | Insertion of Pacemaker Lead into Right Ventricle, Open Approach |
| 02HK0MZ | Insertion of Cardiac Lead into Right Ventricle, Open Approach |
| 02HK3JZ | Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Approach |
| 02HK4JZ | Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Endoscopic Approach |
| 02HK4MZ | Insertion of Cardiac Lead into Right Ventricle, Percutaneous Endoscopic Approach |
| 02HL0JZ | Insertion of Pacemaker Lead into Left Ventricle, Open Approach |
| 02HL0MZ | Insertion of Cardiac Lead into Left Ventricle, Open Approach |
| 02HL3JZ | Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Approach |
| 02HL4JZ | Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Endoscopic Approach |
| 02HL4MZ | Insertion of Cardiac Lead into Left Ventricle, Percutaneous Endoscopic Approach |
| 02HK3JZ | Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Approach |

(continued)

Table 2. Risk-Standardized Acute Admission Rates for Patients with Heart Failure: Risk Adjustment Procedure Codes (Pacemaker/Cardiac Resynchronization Therapy/Implantable Cardiac Device) (continued)

| ICD-10 Code | ICD-10 Descriptor |
|-------------|--|
| 02HK3MZ | Insertion of Cardiac Lead into Right Ventricle, Percutaneous Approach |
| 02HL3JZ | Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Approach |
| 02HL3MZ | Insertion of Cardiac Lead into Left Ventricle, Percutaneous Approach |
| 02H63JZ | Insertion of Pacemaker Lead into Right Atrium, Percutaneous Approach |
| 02H73JZ | Insertion of Pacemaker Lead into Left Atrium, Percutaneous Approach |
| 02HK3JZ | Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Approach |
| 02HL3JZ | Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Approach |
| 02H63JZ | Insertion of Pacemaker Lead into Right Atrium, Percutaneous Approach |
| 02H73JZ | Insertion of Pacemaker Lead into Left Atrium, Percutaneous Approach |
| 02HN0JZ | Insertion of Pacemaker Lead into Pericardium, Open Approach |
| 02HN0JZ | Insertion of Pacemaker Lead into Pericardium, Open Approach |
| 02HN0MZ | Insertion of Cardiac Lead into Pericardium, Open Approach |
| 02HN0MZ | Insertion of Cardiac Lead into Pericardium, Open Approach |
| 02HN3JZ | Insertion of Pacemaker Lead into Pericardium, Percutaneous Approach |
| 02HN3JZ | Insertion of Pacemaker Lead into Pericardium, Percutaneous Approach |
| 02HN3MZ | Insertion of Cardiac Lead into Pericardium, Percutaneous Approach |
| 02HN3MZ | Insertion of Cardiac Lead into Pericardium, Percutaneous Approach |
| 02HN4JZ | Insertion of Pacemaker Lead into Pericardium, Percutaneous Endoscopic Approach |
| 02HN4JZ | Insertion of Pacemaker Lead into Pericardium, Percutaneous Endoscopic Approach |
| 02HN4MZ | Insertion of Cardiac Lead into Pericardium, Percutaneous Endoscopic Approach |
| 02HN4MZ | Insertion of Cardiac Lead into Pericardium, Percutaneous Endoscopic Approach |
| 02PA0MZ | Removal of Cardiac Lead from Heart, Open Approach |
| 02WA0MZ | Revision of Cardiac Lead in Heart, Open Approach |
| 02WA3MZ | Revision of Cardiac Lead in Heart, Percutaneous Approach |
| 02WA4MZ | Revision of Cardiac Lead in Heart, Percutaneous Endoscopic Approach |
| 02H63JZ | Insertion of Pacemaker Lead into Right Atrium, Percutaneous Approach |
| 02H63JZ | Insertion of Pacemaker Lead into Right Atrium, Percutaneous Approach |
| 02H63MZ | Insertion of Cardiac Lead into Right Atrium, Percutaneous Approach |
| 02H73JZ | Insertion of Pacemaker Lead into Left Atrium, Percutaneous Approach |
| 02H73JZ | Insertion of Pacemaker Lead into Left Atrium, Percutaneous Approach |
| 02H73MZ | Insertion of Cardiac Lead into Left Atrium, Percutaneous Approach |
| 02HK3JZ | Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Approach |
| 02HK3JZ | Insertion of Pacemaker Lead into Right Ventricle, Percutaneous Approach |
| 02HK3MZ | Insertion of Cardiac Lead into Right Ventricle, Percutaneous Approach |
| 02HL3JZ | Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Approach |
| 02HL3JZ | Insertion of Pacemaker Lead into Left Ventricle, Percutaneous Approach |
| 02HL3MZ | Insertion of Cardiac Lead into Left Ventricle, Percutaneous Approach |
| 02PA0MZ | Removal of Cardiac Lead from Heart, Open Approach |
| 02PA0MZ | Removal of Cardiac Lead from Heart, Open Approach |
| 5A1213Z | Performance of Cardiac Pacing, Intermittent |
| 5A1223Z | Performance of Cardiac Pacing, Continuous |

(continued)

Table 2. Risk-Standardized Acute Admission Rates for Patients with Heart Failure: Risk Adjustment Procedure Codes (Pacemaker/Cardiac Resynchronization Therapy/Implantable Cardiac Device) (continued)

| ICD-10 Code | ICD-10 Descriptor |
|-------------|---|
| OJW0PZ | Revision of Cardiac Rhythm Related Device in Trunk Subcutaneous Tissue and Fascia, Open Approach |
| OJW3PZ | Revision of Cardiac Rhythm Related Device in Trunk Subcutaneous Tissue and Fascia, Percutaneous |
| OJH60PZ | Insertion of Cardiac Rhythm Related Device into Chest Subcutaneous Tissue and Fascia, Open Approach |
| OJH60PZ | Insertion of Cardiac Rhythm Related Device into Chest Subcutaneous Tissue and Fascia, Open Approach |
| OJH63PZ | Insertion of Cardiac Rhythm Related Device into Chest Subcutaneous Tissue and Fascia, Percutaneous |
| OJH80PZ | Insertion of Cardiac Rhythm Related Device into Abdomen Subcutaneous Tissue and Fascia, Open Approach |
| OJH83PZ | Insertion of Cardiac Rhythm Related Device into Abdomen Subcutaneous Tissue and Fascia, Percutaneous |
| OJH604Z | Insertion of Pacemaker, Single Chamber into Chest Subcutaneous Tissue and Fascia, Open Approach |
| OJH634Z | Insertion of Pacemaker, Single Chamber into Chest Subcutaneous Tissue and Fascia, Percutaneous |
| OJH804Z | Insertion of Pacemaker, Single Chamber into Abdomen Subcutaneous Tissue and Fascia, Open Approach |
| OJH834Z | Insertion of Pacemaker, Single Chamber into Abdomen Subcutaneous Tissue and Fascia, Percutaneous |
| OJH605Z | Insertion of Pacemaker, Single Chamber Rate Responsive into Chest Subcutaneous Tissue and Fascia |
| OJH805Z | Insertion of Pacemaker, Single Chamber Rate Responsive into Abdomen Subcutaneous Tissue |
| OJH835Z | Insertion of Pacemaker, Single Chamber Rate Responsive into Abdomen Subcutaneous Tissue |
| OJH606Z | Insertion of Pacemaker, Dual Chamber into Chest Subcutaneous Tissue and Fascia, Open |
| OJH636Z | Insertion of Pacemaker, Dual Chamber into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach |
| OJH806Z | Insertion of Pacemaker, Dual Chamber into Abdomen Subcutaneous Tissue and Fascia, Open Approach |
| OJH836Z | Insertion of Pacemaker, Dual Chamber into Abdomen Subcutaneous Tissue and Fascia, Percutaneous |
| OJH604Z | Insertion of Pacemaker, Single Chamber into Chest Subcutaneous Tissue and Fascia, Open Approach |
| OJH634Z | Insertion of Pacemaker, Single Chamber into Chest Subcutaneous Tissue and Fascia, Percutaneous |
| OJH804Z | Insertion of Pacemaker, Single Chamber into Abdomen Subcutaneous Tissue and Fascia, Open |
| OJH834Z | Insertion of Pacemaker, Single Chamber into Abdomen Subcutaneous Tissue and Fascia, Percutaneous |
| OJH605Z | Insertion of Pacemaker, Single Chamber Rate Responsive into Chest Subcutaneous Tissue and Fascia |
| OJH635Z | Insertion of Pacemaker, Single Chamber Rate Responsive into Chest Subcutaneous Tissue and |
| OJH805Z | Insertion of Pacemaker, Single Chamber Rate Responsive into Abdomen Subcutaneous Tissue and Fascia |
| OJH835Z | Insertion of Pacemaker, Single Chamber Rate Responsive into Abdomen Subcutaneous Tissue and Fascia |
| OJH606Z | Insertion of Pacemaker, Dual Chamber into Chest Subcutaneous Tissue and Fascia, Open Approach |
| OJH636Z | Insertion of Pacemaker, Dual Chamber into Chest Subcutaneous Tissue and Fascia, Percutaneous Approach |
| OJH806Z | Insertion of Pacemaker, Dual Chamber into Abdomen Subcutaneous Tissue and Fascia, Open Approach |
| OJH836Z | Insertion of Pacemaker, Dual Chamber into Abdomen Subcutaneous Tissue and Fascia, Percutaneous |
| O2H60KZ | Insertion of Defibrillator Lead into Right Atrium, Open Approach |
| O2H63KZ | Insertion of Defibrillator Lead into Right Atrium, Percutaneous Approach |
| O2H64KZ | Insertion of Defibrillator Lead into Right Atrium, Percutaneous Endoscopic Approach |
| O2H70KZ | Insertion of Defibrillator Lead into Left Atrium, Open Approach |
| O2H73KZ | Insertion of Defibrillator Lead into Left Atrium, Percutaneous Approach |
| O2H74KZ | Insertion of Defibrillator Lead into Left Atrium, Percutaneous Endoscopic Approach |
| O2HK0KZ | Insertion of Defibrillator Lead into Right Ventricle, Open Approach |
| O2PA0MZ | Removal of Cardiac Lead from Heart, Open Approach |

(continued)

Table 2. Risk-Standardized Acute Admission Rates for Patients with Heart Failure: Risk Adjustment Procedure Codes (Pacemaker/Cardiac Resynchronization Therapy/Implantable Cardiac Device) (continued)

| ICD-10 Code | ICD-10 Descriptor |
|-------------|---|
| 0JH608Z | Insertion of Defibrillator Generator into Chest Subcutaneous Tissue and Fascia, Open Approach |
| 0JH638Z | Insertion of Defibrillator Generator into Chest Subcutaneous Tissue and Fascia, Percutaneous |
| 0JH808Z | Insertion of Defibrillator Generator into Abdomen Subcutaneous Tissue and Fascia, Open Approach |
| 0JH838Z | Insertion of Defibrillator Generator into Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach |
| 02HN0KZ | Insertion of Defibrillator Lead into Pericardium, Open Approach |
| 02HN4KZ | Insertion of Defibrillator Lead into Pericardium, Percutaneous Endoscopic Approach |
| 02H40KZ | Insertion of Defibrillator Lead into Coronary Vein, Open Approach |
| 02H44KZ | Insertion of Defibrillator Lead into Coronary Vein, Percutaneous Endoscopic Approach |
| 02HN3KZ | Insertion of Defibrillator Lead into Pericardium, Percutaneous Approach |
| 02QA0ZZ | Repair Heart, Open Approach |
| 02QA3ZZ | Repair Heart, Percutaneous Approach |
| 02QA4ZZ | Repair Heart, Percutaneous Endoscopic Approach |

Table PA1. Procedure Categories That Are Always Planned in the Planned Admission Algorithm Version 3.0

| Procedure CCS (ICD-10) | Description |
|------------------------|--|
| 64 | Bone marrow transplant |
| 105 | Kidney transplant |
| 176 | Other organ transplantation (other than bone marrow corneal or kidney) |

Table PA2. Diagnosis Categories That Are Always Planned in the Planned Admission Algorithm Version 3.0

| Diagnosis CCS (ICD-10) | Description |
|------------------------|--------------------------|
| 45 | Maintenance Chemotherapy |
| 254 | Rehabilitation |

Table PA3: Final Crosswalk for the Potentially Planned Procedure Categories

The ICD-10 specification of the planned admission algorithm version 3.0 includes procedure CCS 169 (Debridement of wound; infection or burn). The ICD-10 version no longer includes procedure CCS 169. The codes in that category were moved to the following procedure CCS categories: CCS 170 (Excision of skin), CCS 174 (Other non-OR therapeutic procedures on skin and breast), CCS 175 (Other OR therapeutic procedures on skin and breast), and CCS 231 (Other therapeutic procedures). Procedure CCS 170 is in version 3.0; however, upon reviewing the codes in that category, it appears that they are for skin excision procedures that would not require an inpatient hospitalization. While these would not show up as admissions in the measure, we have removed procedure CCS 170 in the ICD-10 version of the algorithm to improve the face validity of the algorithm.

We reviewed the codes in the ICD-10 version of procedure CCS 174, CCS 175, and CCS 231 and determined that it would be appropriate to add CCS 175 to the ICD-10 version of the planned admission algorithm. However, we did not feel that procedure CCS 174 or CCS 231 were appropriate additions to the planned admission algorithm because they contained too many minor procedures that do not require admission to the hospital. The few major surgical procedures in both categories

rarely occur in isolation so we felt that it is likely that planned admissions that include those procedures would already be captured by accompanying procedures in other CCS categories in the planned admission algorithm. The one exception is gender reconstruction surgery, which we may consider in future iterations of the planned admission algorithm if we determine that there are enough admissions in the Medicare population to split these codes out from procedure CCS 231.

Table PA3. CCS and ICD-10 Codes for the Potentially Planned Procedure Categories

| ICD-10 Procedure CCS | Description |
|-------------------------|--|
| 3 | Excision, destruction or resection of intervertebral disc |
| 5 | Insertion of catheter or spinal stimulator and injection into spinal |
| 9 | Other OR therapeutic nervous system procedures |
| 10 | Thyroidectomy; partial or complete |
| 12 | Therapeutic endocrine procedures |
| 33 | Other OR therapeutic procedures of mouth and throat |
| 36 | Lobectomy or pneumonectomy |
| 38 | Other diagnostic procedures on lung and bronchus |
| 40 | Other diagnostic procedures of respiratory tract and mediastinum |
| 43 | Heart valve procedures |
| 44 | Coronary artery bypass graft (CABG) |
| 45 | Percutaneous transluminal coronary angioplasty (PTCA) with or without stent |
| 47 | Diagnostic cardiac catheterization; coronary arteriography |
| 48 | Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/defibrillator |
| 49 | Other OR heart procedures |
| 51 | Endarterectomy; vessel of head and neck |
| 52 | Aortic resection; replacement or anastomosis |
| 53 | Varicose vein stripping; lower limb |
| 55 | Peripheral vascular bypass |
| 56 | Other vascular bypass and shunt; not heart |
| 59 | Other OR procedures on vessels of head and neck |
| 62 | Other diagnostic cardiovascular procedures |
| 66 | Procedures on spleen |
| 67 | Other therapeutic procedures; hemic and lymphatic system |
| 74 | Gastrectomy; partial and total |
| 78 | Colorectal resection |
| 79 | Excision of large intestine lesion (not endoscopic) |
| 84 | Cholecystectomy and common duct exploration |
| 85 | Inguinal and femoral hernia repair |
| 86 | Other hernia repair |
| 99 | Other OR gastrointestinal therapeutic procedures |
| 104 | Nephrectomy; partial or complete |
| 106 | Genitourinary incontinence procedures |
| 107 | Extracorporeal lithotripsy; urinary |
| 109 | Procedures on the urethra |
| 112 | Other OR therapeutic procedures of urinary tract |
| 113 | Transurethral resection of prostate (TURP) |

(continued)

Table PA3. CCS and ICD-10 Codes for the Potentially Planned Procedure Categories (continued)

| ICD-10 Procedure CCS | Description |
|----------------------|--|
| 114 | Open prostatectomy |
| 119 | Oophorectomy; unilateral and bilateral |
| 120 | Other operations on ovary |
| 124 | Hysterectomy; abdominal and vaginal |
| 129 | Repair of cystocele and rectocele; obliteration of vaginal vault |
| 132 | Other OR therapeutic procedures; female organs |
| 142 | Partial excision bone |
| 152 | Arthroplasty knee |
| 153 | Hip replacement; total and partial |
| 154 | Arthroplasty other than hip or knee |
| 157 | Amputation of lower extremity |
| 158 | Spinal fusion |
| 159 | Other diagnostic procedures on musculoskeletal system |
| 166 | Lumpectomy; quadrantectomy of breast |
| 167 | Mastectomy |
| 172 | Skin graft |
| 175 | Other OR therapeutic procedures on skin subcutaneous tissue fascia and breast |
| ICD-10 Procedures | Description |
| 0CBS0ZZ | Excision of Larynx, Open Approach |
| 0CBS3ZZ | Excision of Larynx, Percutaneous Approach |
| 0CBS4ZZ | Excision of Larynx, Percutaneous Endoscopic Approach |
| 0CBS7ZZ | Excision of Larynx, Via Natural or Artificial Opening |
| 0CBS8ZZ | Excision of Larynx, Via Natural or Artificial Opening Endoscopic |
| 0CBS0ZZ | Excision of Larynx, Open Approach |
| 0CBS3ZZ | Excision of Larynx, Percutaneous Approach |
| 0CBS4ZZ | Excision of Larynx, Percutaneous Endoscopic Approach |
| 0CBS7ZZ | Excision of Larynx, Via Natural or Artificial Opening |
| 0CBS8ZZ | Excision of Larynx, Via Natural or Artificial Opening Endoscopic |
| 0B110F4 | Bypass Trachea to Cutaneous with Tracheostomy Device, Open Approach |
| 0B110Z4 | Bypass Trachea to Cutaneous, Open Approach |
| 0B113F4 | Bypass Trachea to Cutaneous with Tracheostomy Device, Percutaneous Approach |
| 0B113Z4 | Bypass Trachea to Cutaneous, Percutaneous Approach |
| 0B114F4 | Bypass Trachea to Cutaneous with Tracheostomy Device, Percutaneous Endoscopic Approach |
| 0B114Z4 | Bypass Trachea to Cutaneous, Percutaneous Endoscopic Approach |
| 0CTS0ZZ | Resection of Larynx, Open Approach |
| 0CTS4ZZ | Resection of Larynx, Percutaneous Endoscopic Approach |
| 0CTS7ZZ | Resection of Larynx, Via Natural or Artificial Opening |
| 0CTS8ZZ | Resection of Larynx, Via Natural or Artificial Opening Endoscopic |
| 0B110F4 | Bypass Trachea to Cutaneous with Tracheostomy Device, Open Approach |
| 0B110Z4 | Bypass Trachea to Cutaneous, Open Approach |
| 0B113F4 | Bypass Trachea to Cutaneous with Tracheostomy Device, Percutaneous Approach |
| 0B113Z4 | Bypass Trachea to Cutaneous, Percutaneous Approach |
| 0B114F4 | Bypass Trachea to Cutaneous with Tracheostomy Device, Percutaneous Endoscopic Approach |
| 0B114Z4 | Bypass Trachea to Cutaneous, Percutaneous Endoscopic Approach |

(continued)

Table PA3. CCS and ICD-10 Codes for the Potentially Planned Procedure Categories (continued)

| ICD-10 Procedure CCS | Description |
|----------------------|---|
| 0CTS0ZZ | Resection of Larynx, Open Approach |
| 0CTS4ZZ | Resection of Larynx, Percutaneous Endoscopic Approach |
| 0CTS7ZZ | Resection of Larynx, Via Natural or Artificial Opening |
| 0CTS8ZZ | Resection of Larynx, Via Natural or Artificial Opening Endoscopic |
| 0GTG0ZZ | Resection of Left Thyroid Gland Lobe, Open Approach |
| 0GTG4ZZ | Resection of Left Thyroid Gland Lobe, Percutaneous Endoscopic Approach |
| 0GTH0ZZ | Resection of Right Thyroid Gland Lobe, Open Approach |
| 0GTH4ZZ | Resection of Right Thyroid Gland Lobe, Percutaneous Endoscopic Approach |
| 0GTK0ZZ | Resection of Thyroid Gland, Open Approach |
| 0GTK4ZZ | Resection of Thyroid Gland, Percutaneous Endoscopic Approach |
| 0WB60ZZ | Excision of Neck, Open Approach |
| 0WB63ZZ | Excision of Neck, Percutaneous Approach |
| 0WB64ZZ | Excision of Neck, Percutaneous Endoscopic Approach |
| 0WB6XZZ | Excision of Neck, External Approach |
| 0BW10FZ | Revision of Tracheostomy Device in Trachea, Open Approach |
| 0BW13FZ | Revision of Tracheostomy Device in Trachea, Percutaneous Approach |
| 0BW14FZ | Revision of Tracheostomy Device in Trachea, Percutaneous Endoscopic Approach |
| 0WB6XZ2 | Excision of Neck, Stoma, External Approach |
| 0WQ6XZ2 | Repair Neck, Stoma, External Approach |
| 0B5N0ZZ | Destruction of Right Pleura, Open Approach |
| 0B5N3ZZ | Destruction of Right Pleura, Percutaneous Approach |
| 0B5N4ZZ | Destruction of Right Pleura, Percutaneous Endoscopic Approach |
| 0B5P0ZZ | Destruction of Left Pleura, Open Approach |
| 0B5P3ZZ | Destruction of Left Pleura, Percutaneous Approach |
| 0B5P4ZZ | Destruction of Left Pleura, Percutaneous Endoscopic Approach |
| 04CK0ZZ | Extirpation of Matter from Right Femoral Artery, Open Approach |
| 04CK3ZZ | Extirpation of Matter from Right Femoral Artery, Percutaneous Approach |
| 04CK4ZZ | Extirpation of Matter from Right Femoral Artery, Percutaneous Endoscopic Approach |
| 04CL0ZZ | Extirpation of Matter from Left Femoral Artery, Open Approach |
| 04CL3ZZ | Extirpation of Matter from Left Femoral Artery, Percutaneous Approach |
| 04CL4ZZ | Extirpation of Matter from Left Femoral Artery, Percutaneous Endoscopic Approach |
| 04CM0ZZ | Extirpation of Matter from Right Popliteal Artery, Open Approach |
| 04CM3ZZ | Extirpation of Matter from Right Popliteal Artery, Percutaneous Approach |
| 04CM4ZZ | Extirpation of Matter from Right Popliteal Artery, Percutaneous Endoscopic Approach |
| 04CN0ZZ | Extirpation of Matter from Left Popliteal Artery, Open Approach |
| 04CN3ZZ | Extirpation of Matter from Left Popliteal Artery, Percutaneous Approach |
| 04CN4ZZ | Extirpation of Matter from Left Popliteal Artery, Percutaneous Endoscopic Approach |
| 04CP0ZZ | Extirpation of Matter from Right Anterior Tibial Artery, Open Approach |
| 04CP3ZZ | Extirpation of Matter from Right Anterior Tibial Artery, Percutaneous Approach |
| 04CP4ZZ | Extirpation of Matter from Right Anterior Tibial Artery, Percutaneous Endoscopic Approach |
| 04CQ0ZZ | Extirpation of Matter from Left Anterior Tibial Artery, Open Approach |
| 04CQ3ZZ | Extirpation of Matter from Left Anterior Tibial Artery, Percutaneous Approach |
| 04CQ4ZZ | Extirpation of Matter from Left Anterior Tibial Artery, Percutaneous Endoscopic Approach |
| 04CR0ZZ | Extirpation of Matter from Right Posterior Tibial Artery, Open Approach |

(continued)

Table PA3. CCS and ICD-10 Codes for the Potentially Planned Procedure Categories (continued)

| ICD-10 Procedure CCS | Description |
|----------------------|--|
| 04CR3ZZ | Extirpation of Matter from Right Posterior Tibial Artery, Percutaneous Approach |
| 04CR4ZZ | Extirpation of Matter from Right Posterior Tibial Artery, Percutaneous Endoscopic Approach |
| 04CS0ZZ | Extirpation of Matter from Left Posterior Tibial Artery, Open Approach |
| 04CS3ZZ | Extirpation of Matter from Left Posterior Tibial Artery, Percutaneous Approach |
| 04CS4ZZ | Extirpation of Matter from Left Posterior Tibial Artery, Percutaneous Endoscopic Approach |
| 04CT0ZZ | Extirpation of Matter from Right Peroneal Artery, Open Approach |
| 04CT3ZZ | Extirpation of Matter from Right Peroneal Artery, Percutaneous Approach |
| 04CT4ZZ | Extirpation of Matter from Right Peroneal Artery, Percutaneous Endoscopic Approach |
| 04CU0ZZ | Extirpation of Matter from Left Peroneal Artery, Open Approach |
| 04CU3ZZ | Extirpation of Matter from Left Peroneal Artery, Percutaneous Approach |
| 04CU4ZZ | Extirpation of Matter from Left Peroneal Artery, Percutaneous Endoscopic Approach |
| 04CV0ZZ | Extirpation of Matter from Right Foot Artery, Open Approach |
| 04CV3ZZ | Extirpation of Matter from Right Foot Artery, Percutaneous Approach |
| 04CV4ZZ | Extirpation of Matter from Right Foot Artery, Percutaneous Endoscopic Approach |
| 04CW0ZZ | Extirpation of Matter from Left Foot Artery, Open Approach |
| 04CW3ZZ | Extirpation of Matter from Left Foot Artery, Percutaneous Approach |
| 04CW4ZZ | Extirpation of Matter from Left Foot Artery, Percutaneous Endoscopic Approach |
| 04CY0ZZ | Extirpation of Matter from Lower Artery, Open Approach |
| 04CY3ZZ | Extirpation of Matter from Lower Artery, Percutaneous Approach |
| 04CY4ZZ | Extirpation of Matter from Lower Artery, Percutaneous Endoscopic Approach |
| 0T9030Z | Drainage of Right Kidney with Drainage Device, Percutaneous Approach |
| 0T9040Z | Drainage of Right Kidney with Drainage Device, Percutaneous Endoscopic Approach |
| 0T9130Z | Drainage of Left Kidney with Drainage Device, Percutaneous Approach |
| 0T9140Z | Drainage of Left Kidney with Drainage Device, Percutaneous Endoscopic Approach |
| 0TC03ZZ | Extirpation of Matter from Right Kidney, Percutaneous Approach |
| 0TC04ZZ | Extirpation of Matter from Right Kidney, Percutaneous Endoscopic Approach |
| 0TC13ZZ | Extirpation of Matter from Left Kidney, Percutaneous Approach |
| 0TC14ZZ | Extirpation of Matter from Left Kidney, Percutaneous Endoscopic Approach |
| 0TC33ZZ | Extirpation of Matter from R Kidney Pelvis, Perc Approach |
| 0TC34ZZ | Extirpate of Matter from R Kidney Pelvis, Perc Endo Approach |
| 0TC43ZZ | Extirpation of Matter from Left Kidney Pelvis, Perc Approach |
| 0TC44ZZ | Extirpate of Matter from L Kidney Pelvis, Perc Endo Approach |
| 0TF33ZZ | Fragmentation in Right Kidney Pelvis, Percutaneous Approach |
| 0TF34ZZ | Fragmentation in Right Kidney Pelvis, Percutaneous Endoscopic Approach |
| 0TF43ZZ | Fragmentation in Left Kidney Pelvis, Percutaneous Approach |
| 0TF44ZZ | Fragmentation in Left Kidney Pelvis, Percutaneous Endoscopic Approach |
| GZB4ZZZ | Other Electroconvulsive Therapy |
| GZB0ZZZ | Electroconvulsive Therapy, Unilateral-Single Seizure |
| GZB1ZZZ | Electroconvulsive Therapy, Unilateral-Multiple Seizure |
| GZB2ZZZ | Electroconvulsive Therapy, Bilateral-Single Seizure |
| GZB3ZZZ | Electroconvulsive Therapy, Bilateral-Multiple Seizure |
| GZB4ZZZ | Other Electroconvulsive Therapy |

Table PA4. Acute Diagnosis Categories: ICD-10 Specification of the Planned Admission Algorithm Version 3.0

| ICD-10 Diagnosis CCS | Description |
|-------------------------|---|
| 1 | Tuberculosis |
| 2 | Septicemia (except in labor) |
| 3 | Bacterial infection; unspecified site |
| 4 | Mycoses |
| 5 | HIV infection |
| 7 | Viral infection |
| 8 | Other infections; including parasitic |
| 9 | Sexually transmitted infections (not HIV or hepatitis) |
| 54 | Gout and other crystal arthropathies |
| 55 | Fluid and electrolyte disorders |
| 60 | Acute posthemorrhagic anemia |
| 61 | Sickle cell anemia |
| 63 | Diseases of white blood cells |
| 76 | Meningitis (except that caused by tuberculosis or sexually transmitted disease) |
| 77 | Encephalitis (except that caused by tuberculosis or sexually transmitted disease) |
| 78 | Other CNS infection and poliomyelitis |
| 82 | Paralysis |
| 83 | Epilepsy; convulsions |
| 84 | Headache; including migraine |
| 85 | Coma; stupor; and brain damage |
| 87 | Retinal detachments; defects; vascular occlusion; and retinopathy |
| 89 | Blindness and vision defects |
| 90 | Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitted disease) |
| 91 | Other eye disorders |
| 92 | Otitis media and related conditions |
| 93 | Conditions associated with dizziness or vertigo |
| 99 | Hypertension with complications and secondary hypertension |
| 100 | Acute myocardial infarction |
| 102 | Nonspecific chest pain |
| 104 | Other and ill-defined heart disease |
| 107 | Cardiac arrest and ventricular fibrillation |
| 109 | Acute cerebrovascular disease |
| 112 | Transient cerebral ischemia |
| 116 | Aortic and peripheral arterial embolism or thrombosis |
| 118 | Phlebitis; thrombophlebitis and thromboembolism |
| 120 | Hemorrhoids |
| 122 | Pneumonia (except that caused by TB or sexually transmitted disease) |
| 123 | Influenza |
| 124 | Acute and chronic tonsillitis |
| 125 | Acute bronchitis |
| 126 | Other upper respiratory infections |
| 127 | Chronic obstructive pulmonary disease and bronchiectasis |
| 128 | Asthma |
| 129 | Aspiration pneumonitis; food/vomitus |

(continued)

Table PA4. Acute Diagnosis Categories: ICD-10 Specification of the Planned Admission Algorithm Version 3.0 (continued)

| ICD-10 Diagnosis CCS | Description |
|-------------------------|--|
| 130 | Pleurisy; pneumothorax; pulmonary collapse |
| 131 | Respiratory failure; insufficiency; arrest (adult) |
| 135 | Intestinal infection |
| 137 | Diseases of mouth; excluding dental |
| 139 | Gastroduodenal ulcer (except hemorrhage) |
| 140 | Gastritis and duodenitis |
| 142 | Appendicitis and other appendiceal conditions |
| 145 | Intestinal obstruction without hernia |
| 146 | Diverticulosis and diverticulitis |
| 148 | Peritonitis and intestinal abscess |
| 153 | Gastrointestinal hemorrhage |
| 154 | Noninfectious gastroenteritis |
| 157 | Acute and unspecified renal failure |
| 159 | Urinary tract infections |
| 165 | Inflammatory conditions of male genital organs |
| 168 | Inflammatory diseases of female pelvic organs |
| 172 | Ovarian cyst |
| 197 | Skin and subcutaneous tissue infections |
| 198 | Other inflammatory condition of skin |
| 225 | Joint disorders / dislocations; trauma-related |
| 226 | Fracture of neck of femur (hip) |
| 227 | Spinal cord injury |
| 228 | Skull and face fractures |
| 229 | Fracture of upper limb |
| 230 | Fracture of lower limb |
| 232 | Sprains and strains |
| 233 | Intracranial injury |
| 234 | Crushing injury or internal injury |
| 235 | Open wounds of head; neck; and trunk |
| 237 | Complication of device; implant or graft |
| 238 | Complications of surgical procedures or medical care |
| 239 | Superficial injury; contusion |
| 240 | Burns |
| 241 | Poisoning by psychotropic agents |
| 242 | Poisoning by other medications and drugs |
| 243 | Poisoning by nonmedicinal substances |
| 244 | Other injuries and conditions due to external causes |
| 245 | Syncope |
| 246 | Fever of unknown origin |
| 247 | Lymphadenitis |
| 249 | Shock |
| 250 | Nausea and vomiting |
| 251 | Abdominal pain |
| 252 | Malaise and fatigue |

(continued)

Table PA4. Acute Diagnosis Categories: ICD-10 Specification of the Planned Admission Algorithm Version 3.0 (continued)

| ICD-10 Diagnosis CCS | Description |
|---|--|
| 253 | Allergic reactions |
| 259 | Residual codes; unclassified |
| 650 | Adjustment disorders |
| 651 | Anxiety disorders |
| 652 | Attention-deficit |
| 653 | Delirium |
| 656 | Impulse control disorders |
| 658 | Personality disorders |
| 660 | Alcohol-related disorders |
| 661 | Substance-related disorders |
| 662 | Suicide and intentional self-inflicted injury |
| 663 | Screening and history of mental health and substance abuse codes |
| 670 | Miscellaneous disorders |
| Acute ICD-10 Codes Within Dx CCS 97: Peri-; Endo-; and Myocarditis; Cardiomyopathy | |
| A3681 | Diphtheritic cardiomyopathy |
| A3950 | Meningococcal carditis, unspecified |
| A3953 | Meningococcal pericarditis |
| A3951 | Meningococcal endocarditis |
| A3952 | Meningococcal myocarditis |
| B3320 | Viral carditis, unspecified |
| B3323 | Viral pericarditis |
| B3321 | Viral endocarditis |
| B3322 | Viral myocarditis |
| B376 | Candidal endocarditis |
| B394 I32 | Histoplasmosis capsulati, unspecified Pericarditis in diseases classified elsewhere |
| B394 I39 | Histoplasmosis capsulati, unspecified Endocarditis and heart valve disorders in diseases classified elsewhere |
| B395 I32 | Histoplasmosis duboisii Pericarditis in diseases classified elsewhere |
| B395 I39 | Histoplasmosis duboisii Endocarditis and heart valve disorders in diseases classified elsewhere |
| B399 I32 | Histoplasmosis, unspecified Pericarditis in diseases classified elsewhere |
| I39 B399 | Endocarditis and heart valve disorders in diseases classified elsewhere Histoplasmosis, unspecified |
| B5881 | Toxoplasma myocarditis |
| I010 | Acute rheumatic pericarditis |
| I011 | Acute rheumatic endocarditis |
| I012 | Acute rheumatic myocarditis |
| I018 | Other acute rheumatic heart disease |
| I019 | Acute rheumatic heart disease, unspecified |

(continued)

Table PA4. Acute Diagnosis Categories: ICD-10 Specification of the Planned Admission Algorithm Version 3.0 (continued)

| ICD-10 Codes | Description |
|---|---|
| I020 | Rheumatic chorea with heart involvement |
| I090 | Rheumatic myocarditis |
| I099 | Rheumatic heart disease, unspecified |
| I0989 | Other specified rheumatic heart diseases |
| I32 | Pericarditis in diseases classified elsewhere |
| M3212 | Pericarditis in systemic lupus erythematosus |
| I301 | Infective pericarditis |
| I309 | Acute pericarditis, unspecified |
| I300 | Acute nonspecific idiopathic pericarditis |
| I308 | Other forms of acute pericarditis |
| I330 | Acute and subacute infective endocarditis |
| I39 | Endocarditis and heart valve disorders in diseases classified elsewhere |
| I339 | Acute and subacute endocarditis, unspecified |
| I41 | Myocarditis in diseases classified elsewhere |
| I409 | Acute myocarditis, unspecified |
| I401 | Isolated myocarditis |
| I400 | Infective myocarditis |
| I408 | Other acute myocarditis |
| I312 | Hemopericardium, not elsewhere classified |
| I310 | Chronic adhesive pericarditis |
| I311 | Chronic constrictive pericarditis |
| I314 | Cardiac tamponade |
| I514 | Myocarditis, unspecified |
| Acute ICD-10 Codes Within Dx CCS 105: Conduction Disorders | |
| I442 | Atrioventricular block, complete |
| I4430 | Unspecified atrioventricular block |
| I440 | Atrioventricular block, first degree |
| I441 | Atrioventricular block, second degree |
| I4469 | Other fascicular block |
| I444 | Left anterior fascicular block |
| I445 | Left posterior fascicular block |
| I4460 | Unspecified fascicular block |
| I447 | Left bundle-branch block, unspecified |
| I450 | Right fascicular block |
| I4510 | Unspecified right bundle-branch block |
| I4519 | Other right bundle-branch block |
| I4430 | Unspecified atrioventricular block |
| I4439 | Other atrioventricular block |
| I454 | Nonspecific intraventricular block |
| I452 | Bifascicular block |
| I453 | Trifascicular block |
| I455 | Other specified heart block |
| I456 | Pre-excitation syndrome |

(continued)

Table PA4. Acute Diagnosis Categories: ICD-10 Specification of the Planned Admission Algorithm Version 3.0 (continued)

| ICD-10 Codes | Description |
|--|--|
| I4581 | Long QT syndrome |
| I459 | Conduction disorder, unspecified |
| Acute ICD-10 Codes Within Dx CCS 106: Dysrhythmia | |
| I479 | Paroxysmal tachycardia, unspecified |
| R000 | Tachycardia, unspecified |
| I498 | Other specified cardiac arrhythmias |
| R001 | Bradycardia, unspecified |
| I499 | Cardiac arrhythmia, unspecified |
| I493 | Ventricular premature depolarization |
| I4949 | Other premature depolarization |
| Acute ICD-10 Codes Within Dx CCS 108: Congestive Heart Failure; Nonhypertensive | |
| I0981 | Rheumatic heart failure |
| I509 | Heart failure, unspecified |
| I5022 | Chronic systolic (congestive) heart failure |
| I5032 | Chronic diastolic (congestive) heart failure |
| I5042 | Chronic combined systolic/diastolic hrt failure |
| I501 | Left ventricular failure |
| I5020 | Unspecified systolic (congestive) heart failure |
| I5021 | Acute systolic (congestive) heart failure |
| I5023 | Acute on chronic systolic (congestive) heart failure |
| I5030 | Unspecified diastolic (congestive) heart failure |
| I5031 | Acute diastolic (congestive) heart failure |
| I5033 | Acute on chronic diastolic (congestive) heart failure |
| I5040 | Unsp combined systolic and diastolic (congestive) hrt fail |
| I5041 | Acute combined systolic (congestive) and diastolic (congestive) heart failure |
| I5043 | Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure |
| Acute ICD-10 Codes Within Dx CCS 149: Biliary Tract Disease | |
| K8000 | Calculus of gallbladder w acute cholecyst w/o obstruction |
| K8012 | Calculus of GB w acute and chronic cholecyst w/o obstruction |
| K8001 | Calculus of gallbladder w acute cholecystitis w obstruction |
| K8013 | Calculus of GB w acute and chronic cholecyst w obstruction |
| K8042 | Calculus of bile duct w acute cholecystitis w/o obstruction |
| K8046 | Calculus of bile duct w acute and chronic cholecyst w/o obst |
| K8043 | Calculus of bile duct w acute cholecystitis with obstruction |
| K8047 | Calculus of bile duct w acute and chronic cholecyst w obst |
| K8062 | Calculus of GB and bile duct w acute cholecyst w/o obst |
| K8063 | Calculus of GB and bile duct w acute cholecyst w obstruction |
| K8066 | Calculus of GB and bile duct w ac and chr cholecyst w/o obst |
| K8067 | Calculus of GB and bile duct w ac and chr cholecyst w obst |
| K810 | Acute cholecystitis |
| K812 | Acute cholecystitis with chronic cholecystitis |
| K8030 | Calculus of bile duct w cholangitis, unsp, w/o obstruction |

(continued)

Table PA4. Acute Diagnosis Categories: ICD-10 Specification of the Planned Admission Algorithm Version 3.0 (continued)

| ICD-10 Codes | Description |
|---|--|
| K8031 | Calculus of bile duct w cholangitis, unsp, with obstruction |
| K8032 | Calculus of bile duct with acute cholangitis w/o obstruction |
| K8033 | Calculus of bile duct w acute cholangitis with obstruction |
| K8034 | Calculus of bile duct w chronic cholangitis w/o obstruction |
| K8035 | Calculus of bile duct w chronic cholangitis with obstruction |
| K8036 | Calculus of bile duct w acute and chr cholangitis w/o obst |
| K8037 | Calculus of bile duct w acute and chronic cholangitis w obst |
| K830 | Cholangitis |
| Acute ICD-10 Codes Within Dx CCS 152: Pancreatic Disorders | |
| K859 | Acute pancreatitis, unspecified |
| B252 | Cytomegaloviral pancreatitis |
| K850 | Idiopathic acute pancreatitis |
| K851 | Biliary acute pancreatitis |
| K852 | Alcohol induced acute pancreatitis |
| K853 | Drug induced acute pancreatitis |
| K858 | Other acute pancreatitis |