

ACO #35 – Skilled Nursing Facility 30 day Readmission

Measure Information Form (MIF)

Data Source

- Medicare Inpatient Claims
- Medicare beneficiary enrollment data

Measure Set ID

- ACO #35

Version Number and Effective Date

- Version 1.0, effective 1/1/15

CMS Approval Date

- 12/22/2014

NQF ID

- 2510, under consideration

Date Endorsed

- N/A

Care Setting

- Hospital

Unit of Measurement

- Accountable Care Organization (ACO)

Measurement Duration

- Calendar Year

Measurement Period

- Calendar Year

Measure Type

- Outcome

Measure Scoring

- Risk-standardized readmission rate (RSRR)

Payer Source

- Medicare Fee-for-Service

Improvement Notation

- Lower RSRR scores are better

Measure Steward

- Centers for Medicare and Medicaid Services

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- This ACO risk standardized all condition Skilled Nursing Facility readmission quality measure is adapted from a Skilled Nursing Facility Readmission measure developed by RTI International. The measure is modeled after the risk standardized all condition hospital readmission quality measure developed by Yale in 2011 and updated by Yale in 2014 (Horwitz et al., 2014).

Measure Description

- Risk-adjusted rate of all-cause, unplanned, hospital readmissions within 30 days for Accountable Care Organization (ACO) assigned beneficiaries who had been admitted to a Skilled Nursing Facility (SNF) after discharge from their prior proximal hospitalization.

Rationale

The anticipated benefit of this quality measure is that if consumers are informed of SNF readmission rates, they will make more educated choices with regard to SNF providers. The SNFRM was developed using FFS claims to harmonize with CMS' current Hospital-Wide Readmission measure and other readmission measures being developed for other post-acute care settings [i.e., inpatient rehabilitation facilities (IRF), long-term care hospitals (LTCH), home health agencies (HHA), and end-stage renal disease facilities (ESRD)], and to promote shared accountability for improving care transitions across all settings. Additionally, providers will be encouraged to compete on quality by focusing on improvement efforts to reduce readmissions. The measure can also be used by providers for tracking results of their internal quality improvement initiatives.

Hospital readmissions of Medicare beneficiaries discharged from a hospital to a SNF are prevalent and expensive, and prior studies suggest that a large proportion of readmissions from SNFs are preventable (Mor et al., 2010). According to Mor et al., based on an analysis of SNF data from 2006 Medicare claims merged with the Minimum Data Set (MDS), 23.5 percent of SNF stays resulted in a rehospitalization within 30 days of the initial hospital discharge. The average Medicare payment for each readmission was \$10,352 per hospitalization, for a total of \$4.34 billion. Of these rehospitalizations, 78 percent were deemed potentially avoidable, and applying this figure to the aggregate cost indicates that avoidable hospitalizations resulted in an excess cost of \$3.39 billion (78 percent of \$4.34 billion) to Medicare (Mor, Intrator, Feng, et al., 2010). Several analyses of hospital readmissions of SNF beneficiaries suggest there is opportunity for reducing hospital readmissions among SNF beneficiaries (Li et al., 2012; Mor et al., 2010), and multiple studies suggest that SNF structural and process characteristics can impact readmission rates (Coleman et al., 2004; MedPAC 2011).

In addition to being costly, readmission to the hospital interrupts the SNF beneficiary's therapy and care plan, causes anxiety and discomfort, and exposes the beneficiary to hospital-acquired adverse events such as loss of functional status, healthcare-associated infections or medication errors (Covinsky, Palmer, Fortinsky 2003; Boockvar, Fishman, Kyriacou 2004; Ouslander et al. 2011).

Clinical Recommendation Statement

ACOs will have incentives under the Medicare Shared Savings Program and Pioneer Model to manage the range of medical care, coordination of care, and other factors affecting readmission rates for their assigned beneficiaries. By taking responsibility for all aspects of the medical care of their assigned beneficiaries, ACOs may be able to influence SNF choices

based on quality, and/or be able to assess the range of possible interventions affecting readmissions and then select the interventions appropriate for their beneficiaries.

References

- Coleman EA, Smith JD, Frank JC, Min S-J, Parry C, Kramer AM. Preparing patients and caregivers to participate in care delivered across settings: the Care Transitions Intervention. *Journal of the American Geriatrics Society*. Nov 2004;52(11):1817-1825.
- Conley RR, Kelly DL, Love RC, McMahon RP. Rehospitalization risk with second-generation and depot antipsychotics. *Annals of Clinical Psychiatry*. Mar 2003;15(1):23-31.
- Courtney M, Edwards H, Chang A, Parker A, Finlayson K, Hamilton K. Fewer emergency readmissions and better quality of life for older adults at risk of hospital readmission: a randomized controlled trial to determine the effectiveness of a 24-week exercise and telephone follow-up program. *Journal of the American Geriatrics Society*. Mar 2009;57(3):395-402.
- Garasen H, Windspoll R, Johnsen R. Intermediate care at a community hospital as an alternative to prolonged general hospital care for elderly patients: a randomized controlled trial. *BMC Public Health*. 2007;7:68.
- Horwitz L., et al. *Hospital-Wide All-Cause Risk-Standardized Readmission Measure: Measure Methodology Report*. Prepare for the U.S. Centers for Medicare and Medicaid Services. New Haven, Connecticut: Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation, 2011.
- Horwitz L., et al. *2014 Measure Updates and Specification Report: Hospital-Wide All-Cause Risk-Standardized Readmission Measure – Version 3.0*. Prepare for the U.S. Centers for Medicare and Medicaid Services. New Haven, Connecticut: Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation, 2014.
- Jack BW, Chetty VK, Anthony D, et al. A reengineered hospital discharge program to decrease rehospitalization: a randomized trial. *Ann Intern Med*. Feb 3 2009;150(3):178-187.
- Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. *N Engl J Med*. Apr 2 2009;360(14):1418-1428.
- Koehler BE, Richter KM, Youngblood L, et al. Reduction of 30-day post-discharge hospital readmission or emergency department (ED) visit rates in high-risk elderly medical patients through delivery of a targeted care bundle. *Journal of Hospital Medicine*. Apr 2009;4(4):211-218.
- Jovicic A, Holroyd-Leduc JM, Straus SE. Effects of self-management intervention on health outcomes of patients with heart failure: a systematic review of randomized controlled trials. *BMC Cardiovasc Disord*. 2006;6:43.
- Krumholz HM, Amatruda J, Smith GL, et al. Randomized trial of an education and support intervention to prevent readmission of patients with heart failure. *Journal of the American College of Cardiology*. Jan 2 2002;39(1):83-89.
- Mistiaen P, Francke AL, Poot E. Interventions aimed at reducing problems in adult patients discharged from hospital to home: a systematic meta-review. *BMC Health Services Research*. 2007;7:47.
- Naylor M, Brooten D, Jones R, Lavizzo-Mourey R, Mezey M, Pauly M. Comprehensive discharge planning for the hospitalized elderly. A randomized clinical trial. *Ann Intern Med*. Jun 15 1994;120(12):999-1006.
- Naylor MD, Brooten D, Campbell R, et al. Comprehensive discharge planning and home followup of hospitalized elders: a randomized clinical trial. *Jama*. Feb 17 1999;281(7):613-620.
- Phillips CO, Wright SM, Kern DE, Singa RM, Shepperd S, Rubin HR. Comprehensive discharge planning with postdischarge support for older patients with congestive heart failure: a meta-analysis. *JAMA*. Mar 17 2004;291(11):1358-1367.

Stauffer BD, Fullerton C, Fleming N, et al. Effectiveness and cost of a transitional care program for heart failure: a prospective study with concurrent controls. *Archives of Internal Medicine*. Jul 25 2011;171(14):1238-1243.

van Walraven C, Seth R, Austin PC, Laupacis A. Effect of discharge summary availability during post-discharge visits on hospital readmission. *Journal of General Internal Medicine*. Mar 2002;17(3):186-192.

Voss R, Gardner R, Baier R, Butterfield K, Lehrman S, Gravenstein S. The care transitions intervention: translating from efficacy to effectiveness. *Archives of Internal Medicine*. Jul 25 2011;171(14):1232-1237.

Weiss M, Yakusheva O, Bobay K. Nurse and patient perceptions of discharge readiness in relation to postdischarge utilization. *Medical Care*. May 2010;48(5):482-486.

Release Notes / Summary of Changes

- An addendum to this MIF will be released later in 2015 to update the measure specifications to incorporate ICD-10 diagnosis codes in preparation for the October 2015 ICD-10 transitions.

Technical Specifications

- Target Population
- ACO assigned or aligned Medicare beneficiaries

Outcome Definition

This measure is designed to capture the outcome of unplanned all-cause hospital readmissions (IPPS or CAH) of SNF beneficiaries occurring within 30 days of discharge from the beneficiary's prior proximal acute hospitalization.

Denominator

- Denominator Statement

The denominator includes all beneficiaries who have been admitted to a SNF within one day of discharge from a prior proximal hospitalization, taking denominator exclusions into account, where the beneficiary was age 65 or older, was continuously enrolled in fee-for-service Medicare Part A for at least one month after discharge, was not discharged to another acute care hospital, was not discharged against medical advice, and was alive upon discharge and for 30 days post-discharge. Beneficiaries with SNF stays in swing bed facilities are included in the measure. The prior proximal hospitalization must include admissions to an IPPS acute-care hospital, CAH, or a psychiatric hospital.

- Denominator Details

Admissions are eligible for inclusion in the measure if:

1. Beneficiary is enrolled in Medicare FFS
2. Beneficiary is aged 65 years or older
3. Beneficiary was discharged from a non-federal acute care hospital
4. Beneficiary is transferred to a Skilled Nursing Facility within 1 day of discharge.
5. Beneficiary is enrolled in Part A for the 12 months prior to and including the date of the index admission

- Denominator Exclusions

Excluded from the measure are all admissions for which full data are not available or for which 30-day readmission by itself cannot reasonably be considered a signal of quality of care (i.e. cancer discharges, psychiatric discharges, against medical advice discharges).

1. SNF stays where the beneficiary had one or more intervening post-acute care (PAC) admissions (inpatient rehabilitation facility [IRF] or long-term care hospital [LTCH]) which occurred either between the prior proximal hospital discharge and SNF admission or after the SNF discharge, within the 30-day risk window. Also excluded are SNF admissions where the beneficiary had multiple SNF admissions (>1 SNF admit and discharge date in the 30-day risk window) after the prior proximal hospitalization, within the 30-day risk window.
2. SNF stays with a gap of greater than 1 day between discharge from the prior proximal hospitalization and the SNF admission.
3. SNF stays where the beneficiary did not have at least 12 months of FFS Medicare enrollment prior to the proximal hospital discharge (measured as enrollment during the month of proximal hospital discharge and the for 11 months prior to that discharge).
4. SNF stays in which the beneficiary did not have FFS Medicare enrollment for the entire risk period (measured as enrollment during the month of proximal hospital discharge and the month following the month of discharge).
Rationale: Readmissions occurring within the 30-day risk window when the beneficiary does not have FFS Medicare coverage cannot be detected using claims.
5. SNF stays in which the principal diagnosis for the prior proximal hospitalization was for the medical treatment of cancer. Beneficiaries with cancer whose principal diagnosis from the prior proximal hospitalization was for other diagnoses or for surgical treatment of their cancer remain in the measure.
6. SNF stays where the beneficiary was discharged from the SNF against medical advice.
7. SNF stays in which the principal primary diagnosis for the prior proximal hospitalization was for “rehabilitation care; fitting of prostheses and for the adjustment of devices”.

- Denominator Exceptions and Exclusions Details

Denominator exclusions are identified based on variables contained in the Integrated Data Repository (IDR). For Medicare FFS beneficiaries:

1. Lack of enrollment in Medicare FFS for 30 days post-discharge is identified by beneficiary enrollment status; the enrollment indicators must be appropriately marked for the month(s) which falls within 30 days of hospital discharge date.
2. Lack of continuous enrollment in Medicare FFS for 12 months prior to index hospital stay is determined by beneficiary enrollment status; the enrollment indicators must be appropriately marked for each of the 12 months prior to the index hospital stay
3. Discharges against medical advice are identified using the discharge disposition indicator.
4. PPS-exempt cancer hospitals are identified by their Medicare provider number.
5. **Table 1** indicates all cancer discharge condition categories excluded from the measure.
6. **Table 2** indicates all psychiatric discharge condition categories excluded from the measure.
7. Admissions for rehabilitation care are identified by principal diagnosis codes (ICD-9 codes) included in AHRQ’s Clinical Classification Software category 254

In addition, in-hospital deaths are identified using the discharge disposition vital status indicator in the IDR and transfers to other acute care facilities are identified in the claims when a beneficiary is discharged from an acute care hospital and admitted to another acute care hospital on the same day or next day.

Numerator

- Numerator Statement

The numerator is defined as the risk-adjusted estimate of the number of unplanned readmissions that occurred within 30 days from discharge from the prior proximal acute hospitalization.

- Numerator Details

The measure uses an algorithm to identify “planned readmissions” in claims data that will not count as readmissions in the measure. The algorithm is based on three main principles:

1. A few specific, limited types of care are always considered planned (transplant surgery, maintenance chemotherapy/radiotherapy/ immunotherapy, rehabilitation);
2. Otherwise, a planned readmission is defined as a non-acute readmission for a scheduled procedure; and
3. Admissions for acute illness or for complications of care are never planned.

The algorithm which was originally developed in 2011, and later updated in 2013, to identify planned readmissions uses a flowchart and four tables of specific procedure categories and discharge diagnosis categories to classify readmissions as planned. Readmissions are considered planned if any of the following occurs during the readmission:

1. A procedure is performed that is in one of the procedure categories that are always planned regardless of diagnosis (**Table 3**);
2. The principal diagnosis is in one of the diagnosis categories that are always planned (**Table 4**); or
3. A procedure is performed that is in one of the potentially planned procedure categories (**Table 5 and Table 5a**) and the principal diagnosis is not in the list of acute discharge diagnoses (**Appendix A**).

Stratification or Risk Adjustment

This measure uses risk adjustment and is not stratified. Due to the natural clustering of observations within SNFs, we used hierarchical logistic regression to model the log-odds of readmission for each index SNF stay. Readmission within 30 days was modeled as a function of beneficiary-level demographic and clinical characteristics and a random SNF-level intercept. This model specification accounts for within-SNF correlation of the observed outcomes and assumes that underlying differences in quality among the SNF facilities being evaluated lead to systematic differences in outcomes.

The risk adjustment model for the SNFRM accounts for variation across SNFs in case-mix and beneficiary characteristics predictive of readmission using a hierarchical logistic regression model. The goal of risk adjustment is to account for differences across SNFs in beneficiary demographic and clinical characteristics that might be related to the outcome but are unrelated to quality of care. For this reason, we have to take beneficiary frailty (case mix) into account by including primary diagnosis and comorbidities in our models. In addition, we included demographic variables (age and sex), and other health service factors such as length of stay during the beneficiary’s prior proximal hospitalization, whether the beneficiaries were in the intensive care unit (ICU), and number of previous hospitalizations in the previous 365 days.

To capture beneficiaries’ primary reason for their prior proximal hospitalization, we aggregated the principal discharge diagnosis and all the procedures from the prior proximal hospitalization using the Agency for Healthcare Research and Quality (AHRQ) Clinical Classification System (CCS) single-level codes. The CCS collapses more than 15,000 diagnosis codes and 4,000 procedure codes from the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) into a clinically meaningful, mutually exclusive set of 280 condition categories and 231 procedure categories.

Our model controls for 198 primary conditions using the AHRQ CCS grouper and two additional groupings—one that summed over 29 CCS categories with few beneficiaries in each that increased readmission risk and another that summed over 5 CCS categories with few beneficiaries that decreased readmission risk. We also included 72 comorbidities grouped using CMS’ hierarchical condition categories (HCCs) in our models. The CMS contractor for the HCCs is currently finalizing the ICD-10 mapping into the HCCs. We plan to use the same set of HCCs, and will review the mapping to ensure that there are no changes that impact this measure.

Covariates used in models:

- Age
- Sex
- Length of stay during prior proximal hospitalization

- Any time spent in the intensive care unit (ICU) during the prior proximal hospitalization
- Disabled as a reason for Medicare coverage
- End-stage renal disease (ESRD)
- Number of acute care hospitalizations in the 365 days prior to the prior proximal hospitalization
- Principal diagnosis as categorized using AHRQ's single-level CCS
- System-specific surgical indicators
- Individual comorbidities as grouped by CMS' hierarchical condition categories (HCCs) or other comorbidity indices
- Presence of multiple comorbidities, modeled using two variables: (a) the count of HCCs if count is >2 and (b) the square of this count of HCCs

References

1. O'Malley, A.J., Caudry, D.J., and Grabowski, D.C.: Predictors of Nursing Home Residents' Time to Hospitalization. *Health Serv. Res.*, 46(1p1), 82-104, 2011.

Sampling

- N/A

Calculation Algorithm

Step one: Identify beneficiaries meeting the denominator criteria.

Step two: Identify beneficiaries meeting the numerator criteria taking into account the planned readmission algorithm. We identify the SNF readmission measure 30-day risk window starting from the prior proximal hospitalization discharge date. If the readmission occurred during the SNF stay within the 30-day risk window or after the SNF stay but still within the 30-day risk window, and is not a planned admission, it is counted in the numerator.

Step three: Identify presence or absence of risk adjustment variables for each beneficiary.

Step four: Calculate the predicted and expected number of readmissions for each SNF using the hierarchical logistic regression model. The predicted number of readmissions for each SNF is calculated as the sum of the predicted probability of readmission for each beneficiary in the facility, including the SNF-specific (random) effect. The numerator of the SRR ("predicted") is the number of readmissions for beneficiaries within 30 days predicted on the basis of the ACO's performance with its observed case mix, and the denominator ("expected") is the number of readmissions expected for beneficiaries on the basis of the overall performance with that ACO's case mix. This approach is analogous to a ratio of "observed" to "expected" used in other types of statistical analyses. It conceptually allows for a comparison of a particular ACO's performance given its case-mix to an average ACO's performance with the same case-mix. Thus, an SRR less than 1 indicates lower-than-expected readmission or better quality and an SRR greater than 1 indicates higher-than-expected readmission or worse quality.

Step five: Calculate the risk-standardized SNF 30-day readmission rate (RSRR). Begin with the SRR, obtained above, and multiply it by the overall national raw readmission rate (using data in Step 2) for all SNF stays to produce the risk-standardized readmission rate (RSRR).

NOTE: Because the statistic described in Step five is a complex function of parameter estimates, re-sampling and simulation techniques (e.g., bootstrapping) are necessary to derive a confidence interval estimate for the final risk-standardized rate, to characterize the uncertainty of the estimate.

Table 1. Cancer Discharge Condition Categories Excluded From the Measure (Medicare FFS Data)

ICD-9 AHRQ Diagnosis CCS	Description	ICD-10 AHRQ Diagnosis CCS	Description
11	Cancer of head and neck	11	Cancer of head and neck
12	Cancer of esophagus	12	Cancer of esophagus
13	Cancer of stomach	13	Cancer of stomach
14	Cancer of colon	14	Cancer of colon
15	Cancer of rectum and anus	15	Cancer of rectum and anus
16	Cancer of liver and intrahepatic bile duct	16	Cancer of liver and intrahepatic bile duct
17	Cancer of pancreas	17	Cancer of pancreas
18	Cancer of other GI organs; peritoneum	18	Cancer of other GI organs; peritoneum
19	Cancer of bronchus; lung	19	Cancer of bronchus; lung
20	Cancer; other respiratory and intrathoracic	20	Cancer; other respiratory and intrathoracic
21	Cancer of bone and connective tissue	21	Cancer of bone and connective tissue
22	Melanomas of skin	22	Melanomas of skin
23	Other non-epithelial cancer of skin	23	Other non-epithelial cancer of skin
24	Cancer of breast	24	Cancer of breast
25	Cancer of uterus	25	Cancer of uterus
26	Cancer of cervix	26	Cancer of cervix
27	Cancer of ovary	27	Cancer of ovary
28	Cancer of other female genital organs	28	Cancer of other female genital organs
29	Cancer of prostate	29	Cancer of prostate
30	Cancer of testis	30	Cancer of testis
31	Cancer of other male genital organs	31	Cancer of other male genital organs
32	Cancer of bladder	32	Cancer of bladder
33	Cancer of kidney and renal pelvis	33	Cancer of kidney and renal pelvis
34	Cancer of other urinary organs	34	Cancer of other urinary organs
35	Cancer of brain and nervous system	35	Cancer of brain and nervous system
36	Cancer of thyroid	36	Cancer of thyroid
37	Hodgkin's disease	37	Hodgkin's disease
38	Non-Hodgkin's lymphoma	38	Non-Hodgkin's lymphoma
39	Leukemias	39	Leukemias
40	Multiple myeloma	40	Multiple myeloma
41	Cancer; other and unspecified primary	41	Cancer; other and unspecified primary
42	Secondary malignancies	42	Secondary malignancies
43	Malignant neoplasm without specification of site	43	Malignant neoplasm without specification of site
44	Neoplasms of unspecified nature or uncertain behavior	44	Neoplasms of unspecified nature or uncertain behavior
45	Maintenance chemotherapy; radiotherapy	45	Maintenance chemotherapy; radiotherapy

Table 2. Psychiatric Discharge Condition Categories Excluded From the Measure (Medicare FFS Data)

ICD-9 AHRQ Diagnosis CCS	Description	ICD-10 AHRQ Diagnosis CCS	Description
650	Adjustment disorders	650	Adjustment disorders
651	Anxiety disorders	651	Anxiety disorders
652	Attention-deficit, conduct, and disruptive behavior disorders	652	Attention deficit
654	Developmental disorders	654	Developmental disorders
655	Disorders usually diagnosed in infancy, childhood, or adolescence	655	Disorders usually diagnosed in infancy
656	Impulse control disorders, NEC	656	Impulse control disorders
657	Mood disorders	657	Mood disorders
658	Personality disorders	658	Personality disorders
659	Schizophrenia and other psychotic disorders	659	Schizophrenia and other psychotic disorders
662	Suicide and intentional self-inflicted injury	662	Suicide and intentional self-inflicted injury
670	Miscellaneous disorders	670	Miscellaneous disorders

Table 3. Procedure Categories That Are Always Considered Planned

ICD-9 AHRQ Diagnosis CCS	Description	ICD-10 AHRQ Diagnosis CCS	Description
64	Bone marrow transplant	64	Bone marrow transplant
105	Kidney transplant	105	Kidney transplant
134	Cesarean section	134	Cesarean section
135	Forceps; vacuum; and breech delivery	135	Forceps; vacuum; and breech delivery
176	Other organ transplantation	176	Other organ transplantation (other than bone marrow corneal or kidney)

Table 4. Diagnosis Categories That Are Always Considered Planned

ICD-9 AHRQ Diagnosis CCS	Description	ICD-10 AHRQ Diagnosis CCS	Description
45	Maintenance chemotherapy	45	Maintenance chemotherapy
194	Forceps delivery	194	Forceps delivery
196	Normal pregnancy and/or delivery	196	Normal pregnancy and/or delivery
254	Rehabilitation	254	Rehabilitation

Table 5. Procedure Categories That Are Potentially Planned

ICD-9 AHRQ Procedure CCS	Description	ICD-10 AHRQ Procedure CCS	Description
3	Laminectomy; excision intervertebral disc	3	Excision, destruction or resection of intervertebral disc
5	Insertion of catheter or spinal stimulator and injection into spinal	5	Insertion of catheter or spinal stimulator and injection into spinal
9	Other OR therapeutic nervous system procedures	9	Other OR therapeutic nervous system procedures

(continued)

Table 5. Procedure Categories That Are Potentially Planned (continued)

ICD-9 AHRQ Procedure CCS	Description	ICD-10 AHRQ Procedure CCS	Description
10	Thyroidectomy; partial or complete	10	Thyroidectomy; partial or complete
12	Other therapeutic endocrine procedures	12	Therapeutic endocrine procedures
33	Other OR therapeutic procedures on nose; mouth and pharynx	33	Other OR therapeutic procedures of mouth and throat
36	Lobectomy or pneumonectomy	36	Lobectomy or pneumonectomy
37	Diagnostic Bronchoscopy and Biopsy of Bronchus	37	Diagnostic Bronchoscopy and Biopsy of Bronchus
38	Other diagnostic procedures on lung and bronchus	38	Other diagnostic procedures on lung and bronchus
40	Other diagnostic procedures of respiratory tract and mediastinum	40	Other diagnostic procedures of respiratory tract and mediastinum
43	Heart valve procedures	43	Heart valve procedures
44	Coronary artery bypass graft (CABG)	44	Coronary artery bypass graft (CABG)
45	Percutaneous transluminal coronary angioplasty (PTCA)	45	Percutaneous transluminal coronary angioplasty (PTCA) with or without stent
47	Diagnostic cardiac catheterization; coronary arteriography	47	Diagnostic cardiac catheterization; coronary arteriography
48	Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/defibrillator	48	Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/defibrillator
49	Other OR heart procedures	49	Other OR heart procedures
51	Endarterectomy; vessel of head and neck	51	Endarterectomy; vessel of head and neck
52	Aortic resection; replacement or anastomosis	52	Aortic resection; replacement or anastomosis
53	Varicose vein stripping; lower limb	53	Varicose vein stripping; lower limb
55	Peripheral vascular bypass	55	Peripheral vascular bypass
56	Other vascular bypass and shunt; not heart	56	Other vascular bypass and shunt; not heart
59	Other OR procedures on vessels of head and neck	59	Other OR procedures on vessels of head and neck
62	Other diagnostic cardiovascular procedures	62	Other diagnostic cardiovascular procedures
66	Procedures on spleen	66	Procedures on spleen
67	Other therapeutic procedures; hemic and lymphatic system	67	Other therapeutic procedures; hemic and lymphatic system
71	Gastrostomy; temporary and permanent	71	Gastrostomy; temporary and permanent
74	Gastrectomy; partial and total	74	Gastrectomy; partial and total
78	Colorectal resection	78	Colorectal resection
79	Local excision of large intestine lesion (not endoscopic)	79	Excision of large intestine lesion (not endoscopic)
82	Endoscopic retrograde cannulation of pancreases (ERCP)	82	Endoscopic retrograde cannulation of pancreases (ERCP)
84	Cholecystectomy and common duct exploration	84	Cholecystectomy and common duct exploration
85	Inguinal and femoral hernia repair	85	Inguinal and femoral hernia repair
86	Other hernia repair	86	Other hernia repair
87	Laparoscopy (GI only)	87	Laparoscopy (GI only)

(continued)

Table 5. Procedure Categories That Are Potentially Planned (continued)

ICD-9 AHRQ Procedure CCS	Description	ICD-10 AHRQ Procedure CCS	Description
89	Exploratory Laparotomy	89	Exploratory Laparotomy
99	Other OR gastrointestinal therapeutic procedures	99	Other OR gastrointestinal therapeutic procedures
104	Nephrectomy; partial or complete	104	Nephrectomy; partial or complete
106	Genitourinary incontinence procedures	106	Genitourinary incontinence procedures
107	Extracorporeal lithotripsy; urinary	107	Extracorporeal lithotripsy; urinary
109	Procedures on the urethra	109	Procedures on the urethra
112	Other OR therapeutic procedures of urinary tract	112	Other OR therapeutic procedures of urinary tract
113	Transurethral resection of prostate (TURP)	113	Transurethral resection of prostate (TURP)
114	Open prostatectomy	114	Open prostatectomy
119	Oophorectomy; unilateral and bilateral	119	Oophorectomy; unilateral and bilateral
120	Other operations on ovary	120	Other operations on ovary
124	Hysterectomy; abdominal and vaginal	124	Hysterectomy; abdominal and vaginal
129	Repair of cystocele and rectocele; obliteration of vaginal vault	129	Repair of cystocele and rectocele; obliteration of vaginal vault
132	Other OR therapeutic procedures; female organs	132	Other OR therapeutic procedures; female organs
142	Partial excision bone	142	Partial excision bone
152	Arthroplasty knee	152	Arthroplasty knee
153	Hip replacement; total and partial	153	Hip replacement; total and partial
154	Arthroplasty other than hip or knee	154	Arthroplasty other than hip or knee
157	Amputation of lower extremity	157	Amputation of lower extremity
158	Spinal fusion	158	Spinal fusion
159	Other diagnostic procedures on musculoskeletal system	159	Other diagnostic procedures on musculoskeletal system
164	Other OR therapeutic procedures on musculoskeletal system	164	Other OR therapeutic procedures on musculoskeletal system
166	Lumpectomy; quadrantectomy of breast	166	Lumpectomy; quadrantectomy of breast
167	Mastectomy	167	Mastectomy
169	Debridement of wound; infection or burn		Codes were split among proc CCS 170, 174, 175, and 231; Proc CCS 170 is already in the algorithm but should be removed due to the new codes; Proc CCS 175 has been added in the ICD-10 version; Proc CCS 174 and 231 were not deemed appropriate for this algorithm
170	Excision of skin lesion		Excision of skin - This Proc CCS should be removed in the ICD-10 version of the algorithm
171	Suture of skin and subcutaneous tissue	171	Suture of skin and subcutaneous tissue
172	Skin graft	172	Skin graft
		175	Other OR therapeutic procedures on skin subcutaneous tissue fascia and breast

(continued)

Table 5. Procedure Categories That Are Potentially Planned (continued)

ICD-9 AHRQ Procedure CCS	Description	ICD-10 AHRQ Procedure CCS	Description
30.1	Hemilaryngectomy	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
30.29	Other partial laryngectomy	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
30.3	Complete laryngectomy	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
30.4	Radical laryngectomy	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
		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

(continued)

Table 5. Procedure Categories That Are Potentially Planned (continued)

ICD-9 AHRQ Procedure CCS	Description	ICD-10 AHRQ Procedure CCS	Description
30.4	Radical laryngectomy (continued)	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
31.74	Revision of tracheostomy	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
		0WB6XZZ	Excision of Neck, Stoma, External Approach
		0WQ6XZZ	Repair Neck, Stoma, External Approach
34.6	Scarification of pleura	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
38.18	Endarterectomy, lower limb arteries	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

(continued)

Table 5. Procedure Categories That Are Potentially Planned (continued)

ICD-9 AHRQ Procedure CCS	Description	ICD-10 AHRQ Procedure CCS	Description
38.18	Endarterectomy, lower limb arteries (continued)	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
		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

(continued)

Table 5. Procedure Categories That Are Potentially Planned (continued)

ICD-9 AHRQ Procedure CCS	Description	ICD-10 AHRQ Procedure CCS	Description
55.03	Percutaneous nephrostomy without fragmentation	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
55.04	Percutaneous nephrostomy with fragmentation	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
94.26	Subconvulsive electroshock therapy	GZB4ZZZ	Other Electroconvulsive Therapy
94.27	Other electroshock 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 5A. Additional ICD-9 Procedure Codes That Are Considered Potential Planned Readmission

ICD-9 Procedure Codes	Description	Comment
Topic: Amputation of Lower Extremity		
83.82	Graft of muscle or fascia	
86.87	Fat graft of skin and subcutaneous tissue	Required, Diagnosis V58.41, encounter for planned postoperative wound closure
Topic: Amputation of Upper Extremity		
84.00	Upper limb amputation, not otherwise specified	
84.01	Amputation and disarticulation of finger	
84.02	Amputation and disarticulation of thumb	
84.03	Amputation through hand	
84.04	Disarticulation of wrist	
84.05	Amputation through forearm	
84.06	Disarticulation of elbow	
84.07	Amputation through humerus	
84.08	Disarticulation of shoulder	
84.09	Interthoracoscapular amputation	
Topic: Removal of Vascular Obstruction, Non-Coronary		
38.18	Endarterectomy, lower limb vessels	
38.08	Embolectomy, lower limb arteries	
39.50	Angioplasty or atherectomy of other non-coronary vessels	
00.55	Insertion of drug-eluting stent(s) of other peripheral vessel(s)	
00.60	Insertion of drug-eluting stent(s) of superficial femoral artery	
39.90	Insertion of non-drug-eluting peripheral (non-coronary) vessel stent(s)	
Topic: Colon and Rectal Procedures, Selected		
46.85	Dilation of intestine (includes endoscopic approach)	
96.08	Insertion of naso-intestinal tube (includes for decompression)	
96.09	Insertion of rectal tube	
46.50	Closure of intestinal stoma, not otherwise specified	Required, Diagnosis code V55.2, attention to ileostomy, and V55.3, attention to colostomy
46.51	Closure of stoma of small intestine	Required, Diagnosis code V55.2, attention to ileostomy, and V55.3, attention to colostomy
46.52	Closure of stoma of large intestine	Required, Diagnosis code V55.2, attention to ileostomy, and V55.3, attention to colostomy
46.86	Endoscopic insertion of colonic stent(s)	
46.87	Other insertion of colonic stent (s)	
Topic: Insertion of Feeding Tubes		
44.39	Other gastroenterostomy (GJ-tube)	
46.39	Other enterostomy (J-tube)	

(continued)

Table 5A. Additional ICD-9 Procedure Codes That Are Considered Potential Planned Readmission (continued)

ICD-9 Procedure Codes	Description	Comment
Topic: Routine Device Replacement		
86.06	Insertion of totally implanted infusion pump	
Topic: Routine Removal of Devices		
84.57	Removal of (cement) spacer (includes antibiotic impregnated spacer)	
97.41	Removal of thoracotomy tube or pleural cavity drain (non-incisional)	
02.43	Removal of ventricular shunt	
97.37	Removal of tracheostomy tube (non-incisional)	
01.27	removal of catheter(s) from cranial cavity or tissue	
86.05	Incision with removal of foreign body or device from skin and subcutaneous tissue	
02.95	Removal of skull tongs or halo traction device	
78.60- 78.69	Removal of implanted devices from bone(includes internal and external fixation)	
80.00- 80.09	Orthopedic implants arthrotomy for removal of prosthesis without replacement	This code became available in CY 2010
Topic: Pleurosclerosis		
34.6	Scarification of pleura	
34.92	Injection into thoracic cavity	
Topic: Colon and Rectal Procedures, Selected		
51.14	Other close (endoscopic) biopsy of biliary duct or sphincter of Oddi	
51.64	Endoscopic excision or destruction of lesion of biliary ducts or sphincter of Oddi	
51.84	Endoscopic dilation of ampulla and biliary duct	
51.85	Endoscopic sphincterotomy and papillotomy	
51.86	Endoscopic insertion of nasobiliary drainage tube	
51.87	Endoscopic insertion of stent (tube) into bile duct	
51.88	Endoscopic removal of stone(s)from biliary tract	
Topic: Fistula		
42.84	Repair of esophageal fistula, not elsewhere classified	
44.63	Closure of other gastric fistula (include gastrocolic, gastrojejunalocolic fistula)	
46.72	Closure of fistula of duodenum	
46.74	Closure of fistula of small intestine, except duodenum (includes enterocutaneous)	
46.76	Closure of fistula of large intestine	
47.92	Closure of appendiceal fistula	
48.73	Closure of other rectal fistula	
48.93	Repair of perirectal fistula	
49.11	Anal fistulotomy	

(continued)

Table 5A. Additional ICD-9 Procedure Codes That Are Considered Potential Planned Readmission (continued)

ICD-9 Procedure Codes	Description	Comment
49.12	Anal fistulectomy	
49.73	Closure of anal fistula	
19.9	Other repair of middle ear (includes closure of mastoid fistula)	
20.93	Repair of oval and round windows (includes closure of fistula)	
21.82	Closure of nasal fistula	
31.62	Closure of fistula of larynx (includes laryngotracheal)	
31.73	Closure of other fistula of trachea (includes tracheoesophageal)	
33.42	Closure of bronchial fistula (includes bronchocutaneous, bronchoesophageal, bronchovisceral)	
34.73	Closure of other fistula of thorax (includes bronchopleural, bronchopleurocutaneous, bronchopleuromediastinal)	
34.83	Closure of fistula of diaphragm (includes thoracoabdominal, thoracogastric, thoracointestinal)	
34.93	Repair of pleura (includes closure of unspecified pleural fistula)	
61.42	repair of scrotal fistula	
Topic: Tendon Repair (eye)		
15.7	Repair of injury of extraocular muscle (includes repair of tendon)	
Topic: Aneurysm		
39.51	Clipping of aneurysm	

Appendix A: Acute Diagnosis Categories

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
100	Acute myocardial infarction (with the exception of ICD-9 codes 410.x2)
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

(continued)

Diagnosis CCS	Description
129	Aspiration pneumonitis; food/vomitus
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 and 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)

Diagnosis CCS	Description
253	Allergic reactions
259	Residual codes; unclassified
650	Adjustment disorders
651	Anxiety disorders
652	Attention-deficit, conduct, and disruptive behavior disorders
653	Delirium, dementia, and amnestic and other cognitive disorders
656	Impulse control disorders, NEC
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

(continued)

ICD 9 Code	Description
Acute ICD-9 Codes Within Dx CCS 97: Peri-; Endo-; and Myocarditis; Cardiomyopathy	
03282	Diphtheritic myocarditis
03640	Meningococcal carditis nos
03641	Meningococcal pericarditis
03642	Meningococcal endocarditis
03643	Meningococcal myocarditis
07420	Coxsackie carditis nos
07421	Coxsackie pericarditis
07422	Coxsackie endocarditis
07423	Coxsackie myocarditis
11281	Candidal endocarditis
11503	Histoplasma capsulatum pericarditis
11504	Histoplasma capsulatum endocarditis
11513	Histoplasma duboisii pericarditis
11514	Histoplasma duboisii endocarditis
11593	Histoplasmosis pericarditis
11594	Histoplasmosis endocarditis
1303	Toxoplasma myocarditis
3910	Acute rheumatic pericarditis
3911	Acute rheumatic endocarditis
03282	Diphtheritic myocarditis
03640	Meningococcal carditis nos
03641	Meningococcal pericarditis
03642	Meningococcal endocarditis
03643	Meningococcal myocarditis
07420	Coxsackie carditis nos
07421	Coxsackie pericarditis
07422	Coxsackie endocarditis
07423	Coxsackie myocarditis
11281	Candidal endocarditis
11503	Histoplasma capsulatum pericarditis
11504	Histoplasma capssulatum endocarditis
11513	Histoplasma duboisii pericarditis
11514	Histoplasma duboisii endocarditis
11593	Histoplasmosis pericarditis
11594	Histoplasmosis endocarditis
1303	Toxoplasma myocarditis
3910	Acute rheumatic pericarditis
3911	Acute rheumatic endocarditis
3912	Acute rheumatic myocarditis
3918	Acute rheumatic heart disease nec
3919	Acute rheumatic heart disease nos
3920	Rheumatic chorea w heart involvement

(continued)

ICD 9 Code	Description
3980	Rheumatic myocarditis
39890	Rheumatic heart disease nos
39899	Rheumatic heart disease nec
4200	Acute pericarditis in other disease
42090	Acute pericarditis nos
42091	Acute idiopath pericarditis
42099	Acute pericarditis nec
4210	Acute/subacute bacterial endocarditis
4211	Acute endocarditis in other diseases
4219	Acute/subacute endocarditis nos
4220	Acute myocarditis in other diseases
42290	Acute myocarditis nos
42291	Idiopathic myocarditis
42292	Septic myocarditis
42293	Toxic myocarditis
42299	Acute myocarditis nec
4230	Hemopericardium
4231	Adhesive pericarditis
4232	Constrictive pericarditis
4233	Cardiac tamponade
4290	Myocarditis nos
Acute ICD-9 Codes Within Dx CCS 105: Conduction Disorders	
4260	Atrioventricular
42610	Atrioventricular block nos
42611	Atrioventricular block-1st degree
42612	Atrioventricular block-mobitz ii
42613	Atrioventricular block-2nd degree nec
4262	Left bundle branch hemiblock
4263	Left bundle branch block nec
4264	Right bundle branch block
42650	Bundle branch block nos
42651	Right bundle branch block/left posterior fascicular block
42652	Right bundle branch block/left ant fascicular block
42653	Bilateral bundle branch block nec
42654	Trifascicular block
4266	Other heart block
4267	Anomalous atrioventricular excitation
42681	Lown-ganong-levine syndrome
42682	Long qt syndrome
4269	Conduction disorder nos
Acute ICD-9 Codes Within Dx CCS 106: Dysrhythmia	
4272	Paroxysmal tachycardia nos
7850	Tachycardia nos
42789	Cardiac dysrhythmias nec

(continued)

ICD 9 Code	Description
4279	Cardiac dysrhythmia nos
42769	Premature beats nec
Acute ICD-9 Codes Within Dx CCS 108: Congestive Heart Failure; Nonhypertensive	
39891	Rheumatic heart failure
4280	Congestive heart failure
4281	Left heart failure
42820	Unspecified systolic heart failure
42821	Acute systolic heart failure
42823	Acute on chronic systolic heart failure
42830	Unspecified diastolic heart failure
42831	Acute diastolic heart failure
42833	Acute on chronic diastolic heart failure
42840	Unspec combined syst & dias heart failure
42841	Acute combined systolic & diastolic heart failure
42843	Acute on chronic combined systolic & diastolic heart failure
4289	Heart failure nos
Acute ICD-9 Codes Within Dx CCS 149: Biliary Tract Disease	
5740	Calculus of gallbladder with acute cholecystitis
57400	Calculus of gallbladder with acute cholecystitis without mention of obstruction
57401	Calculus of gallbladder with acute cholecystitis with obstruction
5743	Calculus of bile duct with acute cholecystitis
57430	Calculus of bile duct with acute cholecystitis without mention of obstruction
57431	Calculus of bile duct with acute cholecystitis with obstruction
5746	Calculus of gallbladder and bile duct with acute cholecystitis
57460	Calculus of gallbladder and bile duct with acute cholecystitis without mention of obstruction
57461	Calculus of gallbladder and bile duct with acute cholecystitis with obstruction
5748	Calculus of gallbladder and bile duct with acute and chronic cholecystitis
57480	Calculus of gallbladder and bile duct with acute and chronic cholecystitis without mention of obstruction
57481	Calculus of gallbladder and bile duct with acute and chronic cholecystitis with obstruction
5750	Acute cholecystitis
57512	Acute and chronic cholecystitis
5761	Cholangitis
Acute ICD-9 Codes Within Dx CCS 152: Pancreatic Disorders	
5770	Acute pancreatitis