# Appendix A. Planned Readmission Tables

**Planned Readmission Algorithm- General Population Tables**

**Table PR 1. Procedure categories that are always planned**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Procedure CCS** | **Description** | **Version 1.0** | **Version 2.0** | **Version 2.1** | **Version 3.0** |
| 64 | Bone marrow transplant | x | x | x | x |
| 105 | Kidney transplant | x | x | x | x |
| 134 | Cesarean section1 |  | x | x | x |
| 135 | Forceps; vacuum; and breech delivery[1] |  | x | x | x |
| 176 | Other organ transplantation | x | x | x | x |

**Table PR 2. Diagnosis categories that are always planned**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Diagnosis CCS** | **Description** | **Version 1.0** | **Version 2.0** | **Version 2.1** | **Version 3.0** |
| 45 | Maintenance chemotherapy | x | x | x | x |
| 194 | Forceps delivery1 |  | x | x | x |
| 196 | Normal pregnancy and/or delivery1 |  | x | x | x |
| 254 | Rehabilitation | x | x | x | x |

**Table PR 3. Potentially planned procedure categories**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Procedure CCS** | **Description** | **Version 1.0** | **Version 2.0** | **Version 2.1** | **Version 3.0** |
| 1 | Incision and excision of CNS | x |  |  |  |
| 3 | Laminectomy; excision intervertebral disc | x | x | x | x |
| 5 | Insertion of catheter or spinal stimulator and injection into spinal |  | x | x | x |
| 9 | Other OR therapeutic nervous system procedures |  | x | x | x |
| 10 | Thyroidectomy; partial or complete | x | x | x | x |
| 12 | Other therapeutic endocrine procedures |  | x | x | x |
| 33 | Other OR therapeutic procedures on nose; mouth and pharynx |  | x | x | x |
| 36 | Lobectomy or pneumonectomy | x | x | x | x |
| 38 | Other diagnostic procedures on lung and bronchus |  | x | x | x |
| 40 | Other diagnostic procedures of respiratory tract and mediastinum |  | x | x | x |
| 43 | Heart valve procedures | x | x | x | x |
| 44 | Coronary artery bypass graft (CABG) | x | x | x | x |
| 45 | Percutaneous transluminal coronary angioplasty (PTCA) | x | x | x | x |
| 47 | Diagnostic cardiac catheterization; coronary arteriography |  | x | x | x |
| 48 | Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/defibrillator | x | x | x | x |
| 49 | Other OR heart procedures |  | x | x | x |
| 51 | Endarterectomy; vessel of head and neck | x | x | x | x |
| 52 | Aortic resection; replacement or anastomosis | x | x | x | x |
| 53 | Varicose vein stripping; lower limb |  | x | x | x |
| 55 | Peripheral vascular bypass | x | x | x | x |
| 56 | Other vascular bypass and shunt; not heart |  | x | x | x |
| 59 | Other OR procedures on vessels of head and neck |  | x | x | x |
| 60 | Embolectomy and endarterectomy of lower limbs | x |  |  |  |
| 62 | Other diagnostic cardiovascular procedures |  | x | x | x |
| 66 | Procedures on spleen |  | x | x | x |
| 67 | Other therapeutic procedures; hemic and lymphatic system |  | x | x | x |
| 74 | Gastrectomy; partial and total | x | x | x | x |
| 78 | Colorectal resection | x | x | x | x |
| 79 | Local excision of large intestine lesion (not endoscopic) |  | x | x | x |
| 84 | Cholecystectomy and common duct exploration | x | x | x | x |
| 85 | Inguinal and femoral hernia repair | x | x | x | x |
| 86 | Other hernia repair |  | x | x | x |
| 99 | Other OR gastrointestinal therapeutic procedures | x | x | x | x |
| 104 | Nephrectomy; partial or complete | x | x | x | x |
| 106 | Genitourinary incontinence procedures |  | x | x | x |
| 107 | Extracorporeal lithotripsy; urinary |  | x | x | x |
| 109 | Procedures on the urethra |  | x | x | x |
| 112 | Other OR therapeutic procedures of urinary tract |  | x | x | x |
| 113 | Transurethral resection of prostate (TURP) | x | x | x | x |
| 114 | Open prostatectomy | x | x | x | x |
| 119 | Oophorectomy; unilateral and bilateral | x | x | x | x |
| 120 | Other operations on ovary |  | x | x | x |
| 124 | Hysterectomy; abdominal and vaginal | x | x | x | x |
| 129 | Repair of cystocele and rectocele; obliteration of vaginal vault |  | x | x | x |
| 132 | Other OR therapeutic procedures; female organs |  | x | x | x |
| 142 | Partial excision bone |  | x | x | x |
| 152 | Arthroplasty knee | x | x | x | x |
| 153 | Hip replacement; total and partial |  | x | x | x |
| 154 | Arthroplasty other than hip or knee | x | x | x | x |
| 157 | Amputation of lower extremity | x | x | x | x |
| 158 | Spinal fusion | x | x | x | x |
| 159 | Other diagnostic procedures on musculoskeletal system |  | x | x | x |
| 166 | Lumpectomy; quadrantectomy of breast | x | x | x | x |
| 167 | Mastectomy | x | x | x | x |
| 169 | Debridement of wound; infection or burn |  | x | x | x |
| 170 | Excision of skin lesion |  |  | x | x |
| 172 | Skin graft |  | x | x | x |
| 211 | Therapeutic radiology for cancer treatment | x | x | x |  |
| 224 | Cancer chemotherapy |  |  | x |  |
| 30.4, 31.74, 34.6 | Radical laryngectomy, revision of tracheostomy, scarification of pleura (from Proc CCS 42 - Other OR procedures on respiratory system and mediastinum) | x | x | x | x |
| 30.1, 30.29, 30.3 | Hemilaryngectomy, Other partial laryngectomy, Complete laryngectomy (from Proc CCS 42 - Other OR procedures on respiratory system and mediastinum) |  | x | x | x |
| 38.18 | Endarterectomy leg vessel (from Proc CCS 60- Embolectomy and endarterectomy of lower limbs) |  | x | x | x |
| 55.03, 55.04 | Percutaneous nephrostomy with and without fragmentation (from Proc CCS 103- Nephrotomy and nephrostomy) |  | x | x | x |
| 94.26, 94.27 | Electroshock therapy (from Proc CCS 218- Psychological and psychiatric evaluation and therapy) | x | x | x | x |

**Table PR 4. Acute diagnosis categories**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Diagnosis CCS** | **Description** | **Version 1.0** | **Version 2.0** | **Version 2.1** | **Version 3.0** |
| 1 | Tuberculosis |  | x | x | x |
| 2 | Septicemia (except in labor) | x | x | x | x |
| 3 | Bacterial infection; unspecified site |  | x | x | x |
| 4 | Mycoses |  | x | x | x |
| 5 | HIV infection |  | x | x | x |
| 7 | Viral infection |  | x | x | x |
| 8 | Other infections; including parasitic |  | x | x | x |
| 9 | Sexually transmitted infections (not HIV or hepatitis) |  | x | x | x |
| 54 | Gout and other crystal arthropathies |  | x | x | x |
| 55 | Fluid and electrolyte disorders | x | x | x | x |
| 60 | Acute posthemorrhagic anemia |  | x | x | x |
| 61 | Sickle cell anemia |  | x | x | x |
| 63 | Diseases of white blood cells |  | x | x | x |
| 76 | Meningitis (except that caused by tuberculosis or sexually transmitted disease) |  | x | x | x |
| 77 | Encephalitis (except that caused by tuberculosis or sexually transmitted disease) |  | x | x | x |
| 78 | Other CNS infection and poliomyelitis |  | x | x | x |
| 82 | Paralysis |  | x | x | x |
| 83 | Epilepsy; convulsions |  | x | x | x |
| 84 | Headache; including migraine |  | x | x | x |
| 85 | Coma; stupor; and brain damage |  | x | x | x |
| 87 | Retinal detachments; defects; vascular occlusion; and retinopathy | | x | x | x |
| 89 | Blindness and vision defects |  | x | x | x |
| 90 | Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitted disease) | | x | x | x |
| 91 | Other eye disorders |  | x | x | x |
| 92 | Otitis media and related conditions |  | x | x | x |
| 93 | Conditions associated with dizziness or vertigo |  | x | x | x |
| 97 | Peri-; endo-; and myocarditis; cardiomyopathy | x |  |  |  |
| 99 | Hypertension with complications |  |  |  | x |
| 100 | Acute myocardial infarction | x | x |  |  |
| 100 | Acute myocardial infarction (with the exception of ICD-9 codes 410.x2) | | | x | x |
| 102 | Nonspecific chest pain |  | x | x | x |
| 104 | Other and ill-defined heart disease |  | x | x | x |
| 105 | Conduction disorders | x |  |  |  |
| 106 | Cardiac dysrhythmias | x |  |  |  |
| 107 | Cardiac arrest and ventricular fibrillation |  | x | x | x |
| 108 | Congestive heart failure; nonhypertensive | x |  |  |  |
| 109 | Acute cerebrovascular disease | x | x | x | x |
| **Diagnosis CCS** | **Description** | **Version 1.0** | **Version 2.0** | **Version 2.1** | **Version 3.0** |
| 112 | Transient cerebral ischemia | x | x | x | x |
| 116 | Aortic and peripheral arterial embolism or thrombosis | x | x | x | x |
| 118 | Phlebitis; thrombophlebitis and thromboembolism |  | x | x | x |
| 120 | Hemorrhoids |  | x | x | x |
| 122 | Pneumonia (except that caused by TB or sexually transmitted disease) | x | x | x | x |
| 123 | Influenza |  | x | x | x |
| 124 | Acute and chronic tonsillitis |  | x | x | x |
| 125 | Acute bronchitis |  | x | x | x |
| 126 | Other upper respiratory infections |  | x | x | x |
| 127 | Chronic obstructive pulmonary disease and bronchiectasis | x | x | x | x |
| 128 | Asthma |  | x | x | x |
| 129 | Aspiration pneumonitis; food/vomitus |  |  | x | x |
| 130 | Pleurisy; pneumothorax; pulmonary collapse | x | x | x | x |
| 131 | Respiratory failure; insufficiency; arrest (adult) | x | x | x | x |
| 135 | Intestinal infection |  | x | x | x |
| 137 | Diseases of mouth; excluding dental |  | x | x | x |
| 139 | Gastroduodenal ulcer (except hemorrhage) | x | x | x | x |
| 140 | Gastritis and duodenitis |  | x | x | x |
| 142 | Appendicitis and other appendiceal conditions |  | x | x | x |
| 145 | Intestinal obstruction without hernia | x | x | x | x |
| 146 | Diverticulosis and diverticulitis | x | x | x | x |
| 148 | Peritonitis and intestinal abscess |  | x | x | x |
| 153 | Gastrointestinal hemorrhage | x | x | x | x |
| 154 | Noninfectious gastroenteritis |  | x | x | x |
| 157 | Acute and unspecified renal failure | x | x | x | x |
| 159 | Urinary tract infections | x | x | x | x |
| 160 | Calculus of urinary tract | x |  |  |  |
| 165 | Inflammatory conditions of male genital organs |  | x | x | x |
| 168 | Inflammatory diseases of female pelvic organs |  | x | x | x |
| 172 | Ovarian cyst |  | x | x | x |
| 197 | Skin and subcutaneous tissue infections |  | x | x | x |
| 198 | Other inflammatory condition of skin |  | x | x | x |
| 201 | Infective arthritis and osteomyelitis (except that caused by TB or sexually transmitted disease) | x |  |  |  |
| 207 | Pathological fracture | x |  |  |  |
| 225 | Joint disorders and dislocations; trauma-related | x | x | x | x |
| 226 | Fracture of neck of femur (hip) | x | x | x | x |
| 227 | Spinal cord injury | x | x | x | x |
| 228 | Skull and face fractures |  | x | x | x |
| 229 | Fracture of upper limb | x | x | x | x |
| **Diagnosis CCS** | **Description** | **Version 1.0** | **Version 2.0** | **Version 2.1** | **Version 3.0** |
| 230 | Fracture of lower limb | x | x | x | x |
| 231 | Other fractures | x |  |  |  |
| 232 | Sprains and strains | x | x | x | x |
| 233 | Intracranial injury | x | x | x | x |
| 234 | Crushing injury or internal injury |  | x | x | x |
| 235 | Open wounds of head; neck; and trunk |  | x | x | x |
| 237 | Complication of device; implant or graft | x | x | x | x |
| 238 | Complications of surgical procedures or medical care | x | x | x | x |
| 239 | Superficial injury; contusion |  | x | x | x |
| 240 | Burns |  | x | x | x |
| 241 | Poisoning by psychotropic agents |  | x | x | x |
| 242 | Poisoning by other medications and drugs |  | x | x | x |
| 243 | Poisoning by nonmedicinal substances |  | x | x | x |
| 244 | Other injuries and conditions due to external causes |  | x | x | x |
| 245 | Syncope | x | x | x | x |
| 246 | Fever of unknown origin |  | x | x | x |
| 247 | Lymphadenitis |  | x | x | x |
| 249 | Shock |  | x | x | x |
| 250 | Nausea and vomiting |  | x | x | x |
| 251 | Abdominal pain |  | x | x | x |
| 252 | Malaise and fatigue |  | x | x | x |
| 253 | Allergic reactions |  | x | x | x |
| 259 | Residual codes; unclassified |  | x | x | x |
| 650 | Adjustment disorders |  | x | x | x |
| 651 | Anxiety disorders |  | x | x | x |
| 652 | Attention-deficit, conduct, and disruptive behavior disorders |  | x | x | x |
| 653 | Delirium, dementia, and amnestic and other cognitive disorders |  | x | x | x |
| 656 | Impulse control disorders, NEC |  | x | x | x |
| 658 | Personality disorders |  | x | x | x |
| 660 | Alcohol-related disorders |  | x | x | x |
| 661 | Substance-related disorders |  | x | x | x |
| 662 | Suicide and intentional self-inflicted injury |  | x | x | x |
| 663 | Screening and history of mental health and substance abuse codes |  | x | x | x |
| 670 | Miscellaneous disorders |  | x | x | x |
| **Acute ICD-9 codes within Dx CCS 97: Peri-; endo-; and myocarditis; cardiomyopathy** | |  |  |  |  |
| 3282 | Diphtheritic myocarditis |  | x | x | x |
| 3640 | Meningococcal carditis nos |  | x | x | x |
| 3641 | Meningococcal pericarditis |  | x | x | x |
| **Diagnosis CCS** | **Description** | **Version 1.0** | **Version 2.0** | **Version 2.1** | **Version 3.0** |
| 3642 | Meningococcal endocarditis |  | x | x | x |
| 3643 | Meningococcal myocarditis |  | x | x | x |
| 7420 | Coxsackie carditis nos |  | x | x | x |
| 7421 | Coxsackie pericarditis |  | x | x | x |
| 7422 | Coxsackie endocarditis |  | x | x | x |
| 7423 | Coxsackie myocarditis |  | x | x | x |
| 11281 | Candidal endocarditis |  | x | x | x |
| 11503 | Histoplasma capsulatum pericarditis |  | x | x | x |
| 11504 | Histoplasma capsulatum endocarditis |  | x | x | x |
| 11513 | Histoplasma duboisii pericarditis |  | x | x | x |
| 11514 | Histoplasma duboisii endocarditis |  | x | x | x |
| 11593 | Histoplasmosis pericarditis |  | x | x | x |
| 11594 | Histoplasmosis endocarditis |  | x | x | x |
| 1303 | Toxoplasma myocarditis |  | x | x | x |
| 3910 | Acute rheumatic pericarditis |  | x | x | x |
| 3911 | Acute rheumatic endocarditis |  | x | x | x |
| 3912 | Acute rheumatic myocarditis |  | x | x | x |
| 3918 | Acute rheumatic heart disease nec |  | x | x | x |
| 3919 | Acute rheumatic heart disease nos |  | x | x | x |
| 3920 | Rheumatic chorea w heart involvement |  | x | x | x |
| 3980 | Rheumatic myocarditis |  | x | x | x |
| 39890 | Rheumatic heart disease nos |  | x | x | x |
| 39899 | Rheumatic heart disease nec |  | x | x | x |
| 4200 | Acute pericarditis in other disease |  | x | x | x |
| 42090 | Acute pericarditis nos |  | x | x | x |
| 42091 | Acute idiopath pericarditis |  | x | x | x |
| 42099 | Acute pericarditis nec |  | x | x | x |
| 4210 | Acute/subacute bacterial endocarditis |  | x | x | x |
| 4211 | Acute endocarditis in other diseases |  | x | x | x |
| 4219 | Acute/subacute endocarditis nos |  | x | x | x |
| 4220 | Acute myocarditis in other diseases |  | x | x | x |
| 42290 | Acute myocarditis nos |  | x | x | x |
| 42291 | Idiopathic myocarditis |  | x | x | x |
| 42292 | Septic myocarditis |  | x | x | x |
| 42293 | Toxic myocarditis |  | x | x | x |
| 42299 | Acute myocarditis nec |  | x | x | x |
| 4230 | Hemopericardium |  | x | x | x |
| 4231 | Adhesive pericarditis |  | x | x | x |
| 4232 | Constrictive pericarditis |  | x | x | x |
| 4233 | Cardiac tamponade |  | x | x | x |
| **Diagnosis CCS** | **Description** | **Version 1.0** | **Version 2.0** | **Version 2.1** | **Version 3.0** |
| 4290 | Myocarditis nos |  | x | x | x |
| **Acute ICD-9 codes within Dx CCS 105: Conduction disorders** | |  |  |  |  |
| 4260 | Atrioventricular |  | x | x | x |
| 42610 | Atrioventricular block nos |  | x | x | x |
| 42611 | Atrioventricular block-1st degree |  | x | x | x |
| 42612 | Atrioventricular block-mobitz ii |  | x | x | x |
| 42613 | Atrioventricular block-2nd degree nec |  | x | x | x |
| 4262 | Left bundle branch hemiblock |  | x | x | x |
| 4263 | Left bundle branch block nec |  | x | x | x |
| 4264 | Right bundle branch block |  | x | x | x |
| 42650 | Bundle branch block nos |  | x | x | x |
| 42651 | Right bundle branch block/left posterior fascicular block |  | x | x | x |
| 42652 | Right bundle branch block/left ant fascicular block |  | x | x | x |
| 42653 | Bilateral bundle branch block nec |  | x | x | x |
| 42654 | Trifascicular block |  | x | x | x |
| 4266 | Other heart block |  | x | x | x |
| 4267 | Anomalous atrioventricular excitation |  | x | x | x |
| 42681 | Lown-ganong-levine syndrome |  | x | x | x |
| 42682 | Long qt syndrome |  | x | x | x |
| 4269 | Conduction disorder nos |  | x | x | x |
| **Acute ICD-9 codes within Dx CCS 106: Dysrhythmia** | |  |  |  |  |
| 4272 | Paroxysmal tachycardia nos |  | x | x | x |
| 7850 | Tachycardia nos |  | x | x | x |
| 42789 | Cardiac dysrhythmias nec |  | x | x | x |
| 4279 | Cardiac dysrhythmia nos |  | x | x | x |
| 42769 | Premature beats nec |  | x | x | x |
| **Acute ICD-9 codes within Dx CCS 108: Congestive heart failure; nonhypertensive** | |  |  |  |  |
| 39891 | Rheumatic heart failure |  | x | x | x |
| 4280 | Congestive heart failure |  | x | x | x |
| 4281 | Left heart failure |  | x | x | x |
| 42820 | Unspecified systolic heart failure |  | x | x | x |
| 42821 | Acute systolic heart failure |  | x | x | x |
| 42823 | Acute on chronic systolic heart failure |  | x | x | x |
| 42830 | Unspecified diastolic heart failure |  | x | x | x |
| 42831 | Acute diastolic heart failure |  | x | x | x |
| 42833 | Acute on chronic diastolic heart failure |  | x | x | x |
| 42840 | Unspec combined syst & dias heart failure |  | x | x | x |
| 42841 | Acute combined systolic & diastolic heart failure |  | x | x | x |
| 42843 | Acute on chronic combined systolic & diastolic heart failure |  | x | x | x |
| **Diagnosis CCS** | **Description** | **Version 1.0** | **Version 2.0** | **Version 2.1** | **Version 3.0** |
| 4289 | Heart failure nos |  | x | x | x |
| **Acute ICD-9 codes within Dx CCS 152: Pancreatic disorders** | |  |  |  |  |
| 5570 | Acute pancreatitis |  |  |  | x |
| **Acute ICD-9 codes within Dx CCS 149: Biliary tract disease** | |  |  |  |  |
| 5740 | Calculus of gallbladder with acute cholecystitis |  |  |  | x |
| 57400 | Calculus of gallbladder with acute cholecystitis without mention of obstruction |  |  |  | x |
| 57401 | Calculus of gallbladder with acute cholecystitis with obstruction |  |  |  | x |
| 5743 | Calculus of bile duct with acute cholecystitis |  |  |  | x |
| 57430 | Calculus of bile duct with acute cholecystitis without mention of obstruction |  |  |  | x |
| 57431 | Calculus of bile duct with acute cholecystitis with obstruction |  |  |  | x |
| 5746 | Calculus of gallbladder and bile duct with acute cholecystitis |  |  |  | x |
| 57460 | Calculus of gallbladder and bile duct with acute cholecystitis without mention of obstruction |  |  |  | x |
| 57461 | Calculus of gallbladder and bile duct with acute cholecystitis with obstruction |  |  |  | x |
| 5748 | Calculus of gallbladder and bile duct with acute and chronic cholecystitis |  |  |  | x |
| 57480 | Calculus of gallbladder and bile duct with acute and chronic cholecystitis without mention of obstruction |  |  |  | x |
| 57481 | Calculus of gallbladder and bile duct with acute and chronic cholecystitis with obstruction |  |  |  | x |
| 5750 | Acute cholecystitis |  |  |  | x |
| 57512 | Acute and chronic cholecystitis |  |  |  | x |
| 5761 | Cholangitis |  |  |  | x |

|  |  |
| --- | --- |
| Color Key |  |
| Grey | Present only in v1.0 |
| Blue | Present only in v2.0 |
| Tan | Added in v2.0 |
| Pink | Altered in v2.1 |
| Coral | Added in v3.0 |
| Green | Removed in v3.0 |
| Purple | Present in all versions |

# Appendix B. Public Comment and Expert Review Process

We posted the algorithm for two public comment periods, one by CMS from August 15-29, 2011 and again as part of the National Quality Forum public and member comment process from January 9-20, 2012. We received 27 comments about the planned readmission algorithm in these two public comment periods. In response, we added two procedure categories and one group of ICD-9 codes to the list of potentially planned procedures. We also added one discharge diagnosis group to the list of acute diagnoses and complications of care list (Appendix A).

Between January, 2012 and March, 2012 we contacted 15 surgical and procedural specialty societies to identify experts for further consultation and refinement of the algorithm. Eleven societies recommended a total of 30 experts, of whom 17 from 9 societies reviewed relevant portions of the algorithm. We also consulted with 10 additional surgeons recommended by affiliates of the Center for Outcomes Research & Evaluation. The expert consultants reviewed relevant portions of the algorithm in separate specialty-specific groups. Each group review followed a structured process that involved: 1) a standardized introduction defining “planned” and “unplanned” readmissions, 2) review of the procedure category list relevant to that specialty, 3) review of data about most frequent procedure categories occurring during readmissions in the hospital-wide readmission cohort, along with the most common diagnosis categories for each procedure, 4) group discussion about appropriate potentially planned/unplanned status for each of the procedures. Disagreements were resolved by consensus. In response to feedback from these experts, we made the following changes to the list of potentially planned procedures: added 27 procedure CCS categories, added groups of ICD-9 codes from two additional procedure CCS categories, added three individual ICD-9 codes from a procedure CCS category from which we had already listed several individual ICD-9 codes, and removed two procedure CCS categories. In addition, we added two procedure CCS categories and two diagnosis CCS categories defining maternity patients to the list of always planned procedures and diagnoses respectively so that the algorithm could be used in all-payer data. Finally, we made the following changes to the list of acute diagnoses and complications of care: added 73 diagnosis CCS categories and removed 8 diagnosis groups, four of which were split at the ICD-9 level into acute and chronic diagnoses. The resulting algorithm is referred to as version 2.0 (Appendix A).

In September, 2012, the original algorithm (v1.0) was used in confidential national reporting of the hospital-wide readmission measure. Hospitals commenting on the measure noted two additional procedure categories that could potentially be planned as well as one acute diagnosis category that had been omitted from the list. These changes were added to the v2.0 algorithm, and the algorithm that resulted from these additional updates is referred to as v2.1.

Appendix C: Screenshot of abstraction database. Yellow highlights indicate fields to be completed by abstractor.



Appendix D. Most common planned procedures/conditions in validation cohort compared to national cohort, based on algorithm version 2.1.

| **CCS** | **Description** | **Validation rank** | **Validation cases, N** | **National rank** | **National cases, N** |
| --- | --- | --- | --- | --- | --- |
| 47 | Diagnostic cardiac catheterization; coronary arteriography | **1** | 45 | **1** | 14,776 |
| 224 | Cancer chemotherapy | **2** | 40 | **8** | 4,655 |
| 157 | Amputation of lower extremity | **3** | 31 | **5** | 6,064 |
| 49 | Other OR heart procedures | **4** | 30 | **6** | 5,761 |
| 48 | Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/defibrillator | **5** | 25 | **2** | 8,912 |
| 43 | Heart valve procedures | **6** | 20 | **10** | 4,277 |
| 999 | Maintenance Chemo | **7** | 20 | **19** | 2,594 |
| 78 | Colorectal resection | **8** | 19 | **9** | 4,470 |
| 99 | Other OR gastrointestinal therapeutic procedures | **9** | 17 | **14** | 2,995 |
| 84 | Cholecystectomy and common duct exploration | **10** | 16 | **4** | 6,188 |
| 169 | Debridement of wound; infection or burn | **11** | 16 | **12** | 3,623 |
| 158 | Spinal fusion | **12** | 16 | **20** | 2,506 |
| 44 | Coronary artery bypass graft (CABG) | **13** | 14 | **7** | 4,870 |
| 142 | Partial excision bone | **14** | 14 | **16** | 2,914 |
| 86 | Other hernia repair | **15** | 14 | **18** | 2,668 |
| 67 | Other therapeutic procedures; hemic and lymphatic system | **16** | 13 | **13** | 3,301 |
| *211* | *Therapeutic radiology for cancer treatment* | ***17*** | *12* | ***25*** | *1,732* |
| 45 | Percutaneous transluminal coronary angioplasty (PTCA) | **18** | 11 | **3** | 7,014 |
| *55* | *Peripheral vascular bypass* | ***19*** | *11* | ***22*** | *2,249* |
| 3 | Laminectomy; excision intervertebral disc | **20** | 10 | **17** | 2,797 |

# In italics: Procedures among the 20 most common planned procedures in the validation sample that are not among the 20 most common nationally.