



Guide to Clinical Validation and Documentation Improvement for Coding

Supporting ICD-10-CM and -PCS code
assignments with clinical documentation

A decorative graphic consisting of several overlapping teal circles of varying sizes and shades. One circle in the foreground contains the year "2023".

2023

Contents

Introduction	1
Resources	3
Using This Guide	4
Appendixes	5
Overview of Fundamentals for Appropriate Coding and Reimbursement	5
Principal Diagnosis	5
Other or Additional Diagnosis	6
Principal Procedure	6
MS-DRGs	6
Complications and Comorbidities (MCC/CC)	7
Present on Admission (POA)	7
Hospital Acquired Conditions (HAC)	8
Query	9
Terminology Clarification—Postoperative and Complication	9
The Importance of Documentation	10
Diagnoses	11
Acidosis	11
Acute Kidney Injury	16
Acute Myocardial Infarction	21
Acute Pulmonary Edema, Noncardiogenic	27
AIDS	30
Aspiration Pneumonia/Pneumonitis/Bronchitis	36
Atelectasis	42
Bacteremia as a Principal Diagnosis	45
Candidiasis	49
Cerebral Edema	54
Cerebrovascular Accident	59
Chest Pain as Principal Diagnosis	66
Chronic Obstructive Pulmonary Disease (COPD) Exacerbation with Asthma/Bronchitis	70
Coagulopathy	74
COVID-19	79
Deep Vein Thrombosis of Upper and Lower Extremities	86
Dehydration as Principal Diagnosis	90
Diabetic Ketoacidosis	93
Empyema, Pleural or Pyothorax	98
Encephalopathy	102
Gastrointestinal Hemorrhage	105

Heart Failure (non-rheumatic)	112
Hepatic Encephalopathy/Hepatic Coma/Portosystemic Encephalopathy	118
Hypernatremia	121
Hyponatremia	125
Iatrogenic (Intraoperative) Puncture or Laceration (Tear) (Rent)	130
Ileus	133
Intraoperative or Postoperative Hemorrhage (not due to device, implant, or graft)	136
Intravenous/Dialysis Line/Catheter Infections	141
Malnutrition	145
Pleural Effusion	149
Poisoning and Toxic Effects of Illicit Drugs, Prescribed Drugs, Nonprescribed Drugs, Alcohol, Chemicals, and Other Substances	153
Postoperative Anemia	157
Postoperative (Postprocedural) (Wound) Infection	161
Post-traumatic Seizures	165
Pressure Ulcer	167
Pulmonary and Respiratory Insufficiency or Distress	172
Respiratory Failure	176
Sepsis	182
SIRS of Noninfectious Origin	190
Syncope as Principal Diagnosis	194
Transient Ischemic Attack	197
Urinary Tract Infection (Bacterial)	202
Procedures	207
Bone Marrow/Stem Cell Transplant	207
Bronchoalveolar Lavage (BAL)/Bronchial Washing	209
Control of Hemorrhage	211
COVID-19 New Technology Treatments	213
Debridement by Excision (Fascia, Muscle, Bone)	217
Debridement by Excision (Skin, Subcutaneous Tissue, Nail)	220
Debridement by Extraction (Muscle, Bone)	222
Debridement by Extraction (Skin, Subcutaneous Tissue and Fascia, Nail)	225
Fusion, Spinal	227
Joint Replacement, Hip, Total, Partial, Revision and Spacers	232
PICC/Central Venous Catheter/Vascular Access Device Insertion	236
Release (Lysis) of Adhesions	239
Right Heart Catheterization/Diagnostic with Right Heart Biopsy	241
Tracheostomy and Ventilation	243
Transbronchial Biopsy of Lung, Lymph Node, Mediastinum via Bronchoscope (extraction) (suction catheter aspiration) (needle aspiration biopsy/Wang)	245
Valve Replacement, Aortic	248

Whipple Procedure	251
Appendix A. Query Guidelines, Examples, and Templates	253
Acidosis Example	260
Acute Kidney Injury Example	261
Acute Myocardial Infarction Example	262
Acute Pulmonary Edema, Noncardiac Example	263
AIDS Example	264
Aspiration Pneumonia Example	265
Atelectasis Example	266
Bacteremia Example	267
Bone Marrow/Stem Cell Transplant Example	268
Bronchoalveolar Lavage (BAL)/Bronchial Washing Example	269
Candidiasis Example	270
Cerebral Edema Example	271
Cerebrovascular Accident Example	272
Chest Pain Example	273
Chronic Obstructive Pulmonary Disease (COPD)—Exacerbation with Asthma/Bronchitis Example	274
Coagulopathy Example	275
Control of Hemorrhage Example	276
COVID-19 Example	277
COVID-19 New Technology Therapeutics Example	278
Debridement by Excision (Subcutaneous Tissue, and Fascia or Muscle) Example	279
Debridement by Extraction (Fascia) Example	280
Deep Vein Thrombosis of Upper and Lower Extremities Example	281
Dehydration as Principal Diagnosis Example	282
Diabetic Ketoacidosis Example	283
Empyema, Pleural or Pyothorax Example	284
Encephalopathy Example	285
Fusion, Spinal Example	286
Gastrointestinal Hemorrhage Example	287
Heart Failure (non-rheumatic) Example	288
Hepatic Encephalopathy Example	289
Hypernatremia Example	290
Hyponatremia Example	291
Iatrogenic (Intraoperative) Puncture or Laceration (Tear) (Rent) Example	292
Ileus Example	293
Intra-op or Post-op Hematoma/Hemorrhage/ Seroma (not due to device, implant, or graft) Example	294
Intravenous/Dialysis Line/Catheter Infections Example	295
Joint Replacement, Hip, Total Example	296

Malnutrition Example	297
Mechanical Ventilation Example	298
Poisoning and Toxic Effects of Illicit Drugs, Prescribed Drugs, Nonprescribed Drugs, Alcohol, Chemicals, and Other Substances Example	299
Pleural Effusion Example	300
Postoperative Anemia Example	301
Postoperative (Postprocedural) (Wound) Infection Example	302
Post-traumatic Seizures Example	303
Pressure (Decubitus) Ulcer Example	304
Pulmonary and Respiratory Insufficiency or Distress Example	305
Release (Lysis) of Adhesions Example	306
Respiratory Failure Example	307
Sepsis Example	308
SIRS of Noninfectious Origin Example	309
Syncope as Principal Diagnosis Example	310
Transbronchial Biopsy of Lung, via Bronchoscope Example	311
Transient Ischemic Attack Example	312
Urinary Tract Infection (Bacterial) Example	313
Valve Replacement, Aortic Example	314
Whipple Procedure Example	315
Blank Template	316
Appendix B. ICD-10-CM Official Guidelines for Coding and Reporting 2022	317
Appendix C. ICD-10-PCS Official Guidelines for Coding and Reporting 2022	397
Appendix D. Abnormal EKGs	411
Appendix E. Abnormal Laboratory Values	413
Appendix F. Pharmacology List	433
Appendix G. Organisms	455
Appendix H. Noninvasive Diagnostic Test Outcomes	459

Candidiasis

B37.2	Candidiasis of skin and nail	
B37.41	Candidal cystitis and urethritis	CC HAC
B37.49	Other urogenital candidiasis	CC HAC
B37.7	Candidal sepsis	MCC
T80.211A	Bloodstream infection due to central venous catheter	CC HAC
T83.510A	Infection and inflammatory reaction due to cystostomy catheter, initial encounter	CC
T83.511A	Infection and inflammatory reaction due to indwelling urethral catheter, initial encounter	CC HAC
T83.512A	Infection and inflammatory reaction due to nephrostomy catheter, initial encounter	CC
T83.518A	Infection and inflammatory reaction due to other urinary catheter, initial encounter	CC HAC
T83.590A	Infection and inflammatory reaction due to implanted urinary neurostimulation device, initial encounter	CC
T83.591A	Infection and inflammatory reaction due to implanted urinary sphincter, initial encounter	CC
T83.592A	Infection and inflammatory reaction due to indwelling ureteral stent, initial encounter	CC
T83.593A	Infection and inflammatory reaction due to other urinary stents, initial encounter	CC
T83.598A	Infection and inflammatory reaction due to other prosthetic device, implant and graft in urinary system, initial encounter	CC

Diagnosis: *Candida* (candidosis) (monilial); sepsis (disseminated) (systemic) (candidemia); urinary tract infection (unspecified) (pyelonephritis) (candiduria); UTI due to CVC, cystostomy, indwelling urethral, nephrostomy, or other urinary catheter, implanted sphincter, neurostimulation device, urinary sphincter, stent, or other prosthetic device)

Note: This clinical review is limited to *Candida* infections related to sepsis/candidemia, urinary tract infections/candiduria, and diaper rash.

Discussion

Candida is a yeast fungal microorganism and some species are endogenous or part of the body's normal flora in certain surface areas and organs. Pathogenic infection, candidiasis, develops when certain conditions promote overgrowth. The conditions that promote overgrowth are predisposing factors or high-risk physiological factors: damaged skin, antibiotic (broad-spectrum) use, which alters the body's normal flora, immunocompromised state (AIDS, chemotherapy, cancer/leukemia, transplant status, dialysis status, steroid use), burns, diabetes, neutropenic state, presence of invasive or indwelling catheter, CVC, or urinary stent, low birth weight newborn, ICU patient, xerostomia, extremes of age, female, bladder dysfunction/stasis or urinary tract obstruction/abnormality, urinary tract instrumentation.

Control of Hemorrhage

Control. Stopping or attempting to stop, postprocedural or other acute bleeding.

093*	Control/Ear, Nose, Sinus
0W3*	Control/Anatomical Regions, General
0X3*	Control/Anatomical Regions, Upper Extremities
0Y3*	Control/Anatomical Regions, Lower Extremities

Procedure: (initial) (successful) control of post-op or other acute bleed/hemorrhage (not requiring a more specific root operation procedure such as bypass, detachment, excision, extraction, reposition, replacement or resection), control of epistaxis

Discussion

ICD-10-PCS defines the root operation Control as, "stopping, or attempting to stop, postprocedural or other acute bleeding." Procedures that fall under root operation Control include:

- Ligation of arterial bleeders
- Cautery or fulguration of source of bleed
- Tamponade (i.e., balloon inflation)
- Vasopressin injection or infusion
- Silver nitrate instillation, irrigation, or chemical cautery with sticks
- Oversewing
- Absorbable Hemostats (i.e., SURGICEL[®], Arista[™] AH)
- Bakri balloon

The site of the bleeding is most often coded as an anatomical region and not to a specific body part. For example, control of post-tonsillectomy hemorrhage is reported with 0W33XZZ Control bleeding in oral cavity and throat, external approach. The root operation Control is also included in one other body system outside of the Anatomical Regions; the Ear, Nose, Sinus (9) body system with only the body part of Nasal Mucosa and Soft Tissue as an option.

According to ICD-10-PCS guideline B3.7: "Control is the root operation coded when the procedure performed to achieve hemostasis, beyond what would be considered integral to the procedure, utilizes techniques (e.g., cautery, application of substances or pressure, suturing, or ligation or clipping of bleeding points at the site) that are not described by a more specific root operation definition, such as Bypass, Detachment, Excision, Extraction, Reposition, Replacement, or Resection. If a more specific root operation definition applies to the procedure performed, then the more specific root operation is coded instead of control."

Examples:

Silver nitrate cautery to treat acute nasal bleeding is coded to the root operation Control.

Liquid embolization of the right internal iliac artery to treat acute hematoma by stopping blood flow is coded to the root operation Occlusion.

Suctioning of residual blood to achieve hemostasis during a transbronchial cryobiopsy is considered integral to the cryobiopsy procedure and is not coded separately.

Sedimentation Rate-Increased Level**Reference Range:** Male 0-20 mm/hr; Female 0-30 mm/hr**Hospital Range:** _____

Condition	Signs & Symptoms	Treatment
Cancer of stomach	Weakness, constipation, abdominal pain, anorexia, weight loss, hematemesis, melena	Chemotherapy, radiation therapy, surgery, pain medications
Endocarditis, bacterial	Skin lesions, weight loss, weakness, sweating, fever, heart murmur	Intravenous fluids, antibiotic therapy
Infarction, myocardial, acute	Severe chest pain, gallop rhythm and other cardiac arrhythmias, shortness of breath, diaphoresis	Continuous monitoring, O ₂ therapy, pain medication, intravenous fluids, intravenous medications, possible resuscitation
Infections (acute)	Fever, malaise, chills	Intravenous fluids, antibiotic therapy

Serum Glutamic-Oxaloacetic Transaminase (SGOT)-Increased Level**Reference Range:** 0-35 Units/L.**Hospital Range:** _____

Condition	Signs & Symptoms	Treatment
Embolism, pulmonary	Dyspnea, rales in lungs, sudden onset of substernal pain, dizziness, pallor	Heparin, diuretics
Failure, heart, congestive, all forms except unspecified	Peripheral edema, shortness of breath; cyanosis is present on occasion; heart rate is irregular; moist rales at base of lungs with productive cough; confusion is usually present	Sodium-restricted diet, digitalis regulation, O ₂ therapy, diuretics
Infarction, myocardial, acute	Severe chest pain, gallop rhythm and other cardiac arrhythmias, shortness of breath, diaphoresis	Continuous monitoring, O ₂ therapy, pain medication, intravenous fluids, intravenous medications, possible resuscitation

Serum Glutamic-Pyruvic Transaminase (SGPT) (ALT)-Increased Level**Reference Range:** 0-35 Units/L**Hospital Range:** _____

Condition	Signs & Symptoms	Treatment
Infarction, myocardial, acute	Severe chest pain, gallop rhythm and other cardiac arrhythmias, shortness of breath, diaphoresis	Continuous monitoring, O ₂ therapy, pain medication, intravenous fluids, intravenous medications, possible resuscitation
Failure, heart, congestive, all forms except unspecified	Peripheral edema, shortness of breath; cyanosis is present on occasion; heart rate is irregular; moist rales at base of lungs with productive cough; confusion is usually present	Sodium-restricted diet, digitalis regulation, O ₂ therapy, diuretics