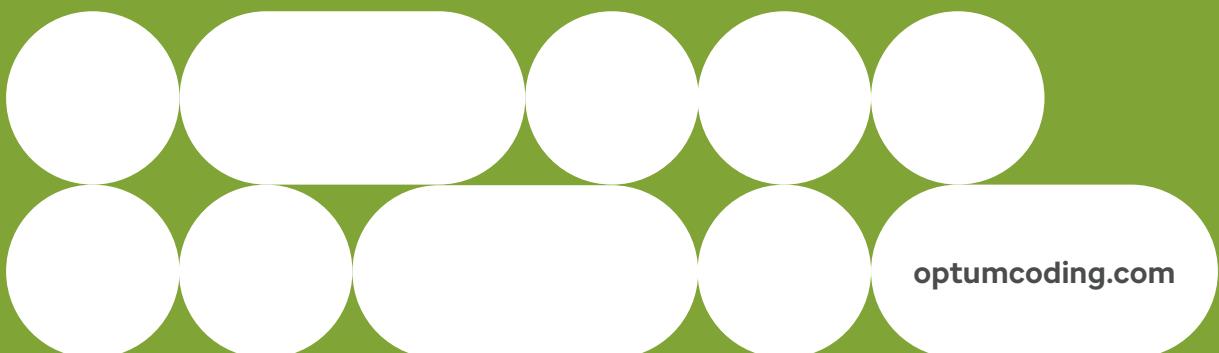




Clinical Validation and Documentation Integrity for Coding

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



2027

optumcoding.com

Contents

Introduction	1
Resources	3
Using This Guide	3
Appendices	4
Overview of Fundamentals for Appropriate Coding and Reimbursement	5
Principal Diagnosis	5
Other or Additional Diagnosis	5
Principal Procedure	5
Complications and Comorbidities (MCC/CC)	6
Hierarchical Condition Category (HCC)	6
Present on Admission (POA)	6
Hospital-Acquired Conditions	7
Terminology Clarification—Postoperative and Complication	8
The Importance of Documentation	8
Diagnoses	9
Acidosis	9
Acute Kidney Injury	13
Acute Myocardial Infarction	18
Acute Pulmonary Edema, Noncardiogenic	23
AIDS	26
Aspiration Pneumonia/Pneumonitis/Bronchitis	31
Atelectasis	35
Bacteremia as a Principal Diagnosis	37
Cerebral Edema	40
Cerebrovascular Accident	44
Chest Pain as Principal Diagnosis	50
Chronic Obstructive Pulmonary Disease (COPD) Exacerbation with Asthma/Bronchitis	53
Coagulopathy	56
COVID-19	60
Deep Vein Thrombosis of Upper and Lower Extremities	65
Dehydration as Principal Diagnosis	68
Diabetic Ketoacidosis	70
Empyema, Pleural or Pyothorax	74
Encephalopathy	77
Fracture, Pathological	80
Gastrointestinal Hemorrhage	83
Heart Failure (non-rheumatic)	89
Hepatic Encephalopathy/Hepatic Coma	93
Hypernatremia	95
Hyponatremia	98
Iatrogenic (Intraoperative) Puncture or Laceration (Tear) (Rent)	101
Ileus	103
Intraoperative or Postoperative Hemorrhage (not due to device, implant, or graft)	105
Intravenous/Dialysis Line/Catheter Infections	109
Malnutrition	112
Pleural Effusion	116
Poisoning and Toxic Effects of Illicit Drugs, Prescribed Drugs, Nonprescribed Drugs, Alcohol, Chemicals, and Other Substances	120
Postoperative Anemia	124
Postoperative (Postprocedural) (Wound) Infection	127
Pressure Ulcer	130
Pulmonary and Respiratory Insufficiency or Distress	134
Respiratory Failure	137

Sepsis	141
SIRS of Noninfectious Origin	148
Syncope as Principal Diagnosis	151
Transient Ischemic Attack	153
Urinary Tract Infection (Bacterial)	156
Procedures	161
Bone Marrow/Stem Cell Transplant	161
Bronchoalveolar Lavage (BAL)/Bronchial Washing	163
Control of Hemorrhage	164
Debridement by Excision (Fascia, Muscle, Bone)	166
Debridement by Excision (Skin, Subcutaneous Tissue, Nail)	169
Debridement by Extraction (Muscle, Bone)	171
Debridement by Extraction (Skin, Subcutaneous Tissue and Fascia, Nail)	173
Fusion, Spinal	175
Joint Replacement, Hip, Total, Partial, Revision and Spacers	179
PICC/Central Venous Catheter/Vascular Access Device Insertion	182
Release (Lysis) of Adhesions	185
Right Heart Catheterization/Diagnostic with Right Heart Biopsy	187
Tracheostomy and Ventilation	189
Transbronchial Biopsy of Lung, Lymph Node, Mediastinum via Bronchoscope (extraction) (suction catheter aspiration) (needle aspiration biopsy/Wang)	191
Valve Replacement, Aortic	194
Whipple Procedure	197
Appendix A. Query Guidelines, Examples, and Templates	199
Appendix B. 2027 ICD-10-CM Official Guidelines for Coding and Reporting	261
Section I. Conventions, general coding guidelines and chapter specific guidelines	266
Section II. Selection of Principal Diagnosis	322
Section III. Reporting Additional Diagnoses	323
Section IV. Diagnostic Coding and Reporting Guidelines for Outpatient Services	324
Appendix C. 2027 ICD-10-PCS Official Guidelines for Coding and Reporting	331
Appendix D. Abnormal EKGs	343
Appendix E. Abnormal Laboratory Values	345
Appendix F. Pharmacology List	365
Appendix G. Organisms	389
Appendix H. Noninvasive Diagnostic Test Outcomes	393

Introduction

Documentation by providers is primarily for clinical communication, with the main intent of coordinating and delivering quality care to patients. It is important that other clinicians involved in the care of the patient understand the thought processes behind decision making in order to accomplish this.

The *ICD-10-CM Official Guidelines for Coding and Reporting* state: "A joint effort between the healthcare provider and the coder is essential to achieve complete and accurate documentation, code assignment, and reporting of diagnoses and procedures. These guidelines have been developed to assist both the healthcare provider and the coder in identifying those diagnoses that are to be reported. The importance of consistent, complete documentation in the medical record cannot be overemphasized. Without such documentation, accurate coding cannot be achieved. The entire record should be reviewed to determine the specific reason for the encounter and the conditions treated."

ICD-10-CM Official Guidelines for Coding and Reporting, Section 1.A.19 states: "The assignment of a diagnosis code is based on the provider's diagnostic statement that the condition exists. The provider's statement that the patient has a particular condition is sufficient. Code assignment is not based on clinical criteria used by the provider to establish the diagnosis. If there is conflicting medical record documentation, query the provider." The rule clarifies that physician documentation of a condition is required for it to be coded. This guideline emphasizes this and places the responsibility with the physician rather than the coder to ensure complete, accurate, and appropriate documentation.

However, this guideline does not eliminate the need for coders and clinical documentation improvement (CDI) staff to communicate with physicians and work together to clarify and improve documentation issues. It does emphasize the need for a strong documentation improvement program that can provide for concurrent efforts to clarify the diagnosis and clinical indicators present in the documentation prior to coding and billing. The American Health Information Management Association (AHIMA) and Association of Clinical Documentation Integrity Specialists (ACDIS) practice brief "Guidelines for Achieving a Compliant Query Practice (2022 Update)" states:

Queries may be necessary in (but not limited to) the following instances:

- To support documentation of medical diagnoses or conditions that are clinically evident and meet the Uniform Hospital Discharge Data Set (UHDDS) requirements but without the corresponding diagnoses or conditions stated.
- To resolve conflicting diagnostic or procedural documentation between providers.
- To clarify the reason for the inpatient/outpatient encounter.
- To seek clarification when it appears a documented diagnosis is not clinically supported or is conflicting with the medical record documentation (clinical validation).
- To confirm a diagnosis documented by an independent licensed practitioner who does not meet the definition of a provider in the inpatient setting (e.g., confirmation of a pathology finding).
- To establish a cause-and-effect relationship between medical conditions.
- To establish clinically supported acuity or specificity of a documented diagnosis to avoid reporting a default or unspecified code.
- To establish the relevance of a condition documented as a "history of" to determine if the condition is active.
- To support appropriate Present on Admission (POA) indicator assignment.
- To determine if a diagnosis is ruled in or out.
- To clarify the objective and/or extent of a procedure.
- To clarify the presence or absence of a complication.
- To clarify a diagnosis on an ancillary note that has been signed but not addressed by a provider. For example, if the nutrition note states "severe malnutrition" and the note is signed by the provider, but the provider does not address the diagnosis within the documentation.

American Hospital Association (AHA) *Coding Clinic* for ICD-10, fourth quarter 2016, pages 147–149, reinforces that this guideline addresses coding, not clinical validation. It indicates that though it is linked to accurate coding, clinical validation is a separate function from the coding process and clinical skill. Codes assigned by a coding professional are based on the documentation by the physician, rather than a particular clinical definition or criteria. This guideline and the resulting advice from *Coding Clinic* stress the need for a process of validating clinical conditions prior to performing the coding process.

Medicare also has standards for clinical evidence. According to Centers for Medicare and Medicaid Services (CMS) MedLearn Matters Article SE1121, "As with all codes, clinical evidence should be present in the medical record to support code assignment."

Hepatic Encephalopathy/Hepatic Coma

K70.40	Alcoholic hepatic failure without coma	HCC
K70.41	Alcoholic hepatic failure with coma	MCC HCC
K71.10	Toxic liver disease with hepatic necrosis, without coma	
K71.11	Toxic liver disease with hepatic necrosis, with coma	MCC
K72.00	Acute and subacute hepatic failure without a coma	MCC
K72.01	Acute and subacute hepatic failure with coma	MCC
K72.10	Chronic hepatic failure without coma	HCC
K72.11	Chronic hepatic failure with coma	MCC HCC
K72.90	Hepatic failure, unspecified without coma	HCC
K72.91	Hepatic failure, unspecified with coma	MCC HCC
K76.82	Hepatic encephalopathy	HCC
K91.82	Postprocedural hepatic failure	CC

Associated terminology: hepatic encephalopathy; hepatic coma

Note: This clinical review is limited to hepatic encephalopathy and hepatic failure (with and without coma). Toxic, metabolic, other, and unspecified encephalopathy is reviewed under the section Encephalopathy in this publication.

Discussion

Encephalopathy is a general term indicating a syndrome of diffuse brain dysfunction which alters brain function or structure. It is a complication of a primary condition or disease, organic or inorganic, and it can be permanent or reversible. The symptom integral to encephalopathy is altered mental status. The type or cause of encephalopathy should be identified and the alphabetic index consulted, which lists many codes for specific causes, such as septic, hepatic, metabolic, drug induced, traumatic (postconcussion), hypertensive, etc.

Hepatic encephalopathy occurs secondary to decreased liver function. The liver's main purpose is to filter toxins (such as ammonia) from the bloodstream, removing the toxins or rendering them harmless. When liver function is impaired, these toxic substances can build up, causing deterioration of the brain. Symptoms of hepatic encephalopathy can range from minimal changes in memory and coordination to amnesia and profound confusion. Lab findings include elevated ammonia levels. Treatment may include lactulose, a laxative that when used in higher doses reduces ammonia absorption from the colon.

Hepatic coma is the most severe and often terminal stage of hepatic encephalopathy. The presence of coma requires explicit physician documentation.

Coding and Documentation Tip

Determine whether Glasgow coma scale scores are evident in the medical record; the physician may use these to assess patients with hepatic coma.

According to the ICD-10-CM guidelines, Glasgow coma scale codes should be reported only in conjunction with traumatic brain injury codes. Although the reporting of Glasgow coma scale codes would not be appropriate in addition to hepatic coma codes, this guideline is not intended to restrict the use of the Glasgow coma scale in assessing these patients.

Coding Tip

Two codes should be reported for documented hepatic encephalopathy—code K76.82 and a code for the underlying liver disease described as “without coma.” If hepatic coma is documented, only one code is reported, that for the underlying liver disease described as “with coma.”

Coding/Reporting Criteria	Clinical Criteria
1. Physical Evaluation <i>(routine/expected in italics)</i>	<ul style="list-style-type: none"> Altered mental status: only s/s or manifestation integral to encephalopathy Glasgow coma scores available
2. Clinical Evaluation <i>(routine/expected in italics)</i>	<ul style="list-style-type: none"> Evaluation of underlying cause Ammonia level Blood tests/CBC Spinal fluid analysis Blood pressure Metabolic tests Drug and toxin levels Blood/body fluid analysis for infection work-up Creatinine Serum electrolytes
3. Diagnostic Px <i>(routine/expected in italics)</i>	<ul style="list-style-type: none"> Evaluation of underlying cause Lumbar puncture Imaging studies EEG
4. Therapeutic Tx <i>(routine/expected in italics)</i>	<ul style="list-style-type: none"> Varies depending on etiology/type and severity Oxygen IV fluids Oral lactulose: hepatic Antibiotics Dialysis: Extracorporeal albumin dialysis (ECAD) Medications to control hyper- or hypotension
5. Increased Nursing Care and/or Monitoring	<ul style="list-style-type: none"> Prevention teaching; importance of diet, medication, dietary compliance
6. Extends LOS	<ul style="list-style-type: none"> Encephalopathy postadmit

Condition	Documentation Example	ICD-10-CM Corresponding Codes
Routine/Expected/Integral/Inherent/Incidental (italics only)	NA	NA
Principal Diagnosis	1. IP Discharge Summary: An 85-year-old male with hepatocerebral intoxication, due to chronic liver failure presented with change in mental status; soft restraints x24 hours due to agitation with combative behavior; patient is a fall risk, work-up for mental status changes, monitored, treated with lactulose. (Query physician for presence of hepatic coma.)	1. Report K76.82 Hepatic encephalopathy; K72.10 Chronic hepatic failure without coma; Z91.81 At risk for falling, Z78.1 Physical restraint status. If query resulted in documentation of hepatic coma, report K72.11 Chronic hepatic failure with coma, followed by the Z codes.
Comorbidity	1. IP Discharge Summary: Admitted with urinary tract infection due to <i>E. coli</i> , severe dehydration. After admission developed mental status changes and was found to have hepatic encephalopathy due to acute hepatitis C. UTI treated with IV antibiotics and dehydration resolved with IV fluids. Hepatic encephalopathy improved with oral lactulose and antivirals given for acute hepatitis C. Follow up tests will be initiated.	1. Report N39.0 Urinary tract infection, site not specified, followed by B96.20 Unspecified Escherichia coli [E. coli] as the cause of diseases classified elsewhere; E86.0 Dehydration, unspecified; B17.10 Acute hepatitis C without hepatic coma; and K76.82 Hepatic encephalopathy.
Complication of Care	NA	NA
Poisoning or Adverse Effect of Medication/Chemical	NA	NA

Additional References

AHA CC: 4Q, 2022, p. 27; 1Q, 2022, p. 52; 1Q, 2021, p. 13

Pulmonary and Respiratory Insufficiency or Distress

J80	Acute respiratory distress syndrome	MCC	HCC
J95.1	Acute pulmonary insufficiency following thoracic surgery	MCC	
J95.2	Acute pulmonary insufficiency following nonthoracic surgery	MCC	
J95.3	Chronic pulmonary insufficiency following surgery	MCC	
J98.4	Other disorders of lung		
R06.00	Dyspnea, unspecified		
R06.03	Acute respiratory distress		
R06.89	Other abnormalities of breathing		

Associated terminology: acute respiratory distress syndrome (ARDS); acute pulmonary insufficiency following surgery; pulmonary insufficiency following trauma; pulmonary insufficiency following shock; respiratory insufficiency; respiratory distress; adult respiratory distress

Discussion

Respiratory insufficiency and respiratory distress are chapter 18 codes for signs and symptoms. Respiratory insufficiency is reported using code R06.89 Other abnormalities of breathing, and respiratory distress is reported with R06.03 Acute respiratory distress, which also includes respiratory distress not documented as "acute." This difficulty in breathing can be associated with underlying conditions, such as chronic obstructive pulmonary disease or asthma, and is not reportable as an integral sign or symptom of these conditions. Respiratory insufficiency or distress is also not reported when it is within limits of an expected outcome following surgery or certain procedures, including extubation. These signs or symptom codes will not be reported when they are related or integral to an established definitive diagnosis and when they are an expected outcome, or without clinical significance. These codes would be reported only when they are the sign or symptom for which a workup is performed or treatment rendered for, and no definitive diagnosis is established at discharge. Documentation of "postoperative respiratory insufficiency," meaning the patient is being routinely weaned for postsurgical extubation or is given routine incentive spirometry, will not be reported as it does not clinically meet criteria as a reportable diagnosis. Neither does it get reported as a complication as these are both expected and routine therapies for a postoperative patient.

Acute respiratory distress syndrome (ARDS) represents severe hypoxia with pulmonary edema due to acute lung injury (ALI) due to trauma or illness and is a clinically significant critical condition. ARDS includes pulmonary edema and acute hypoxic respiratory failure. ARDS is a diagnosis of exclusion; workup should rule out other etiologies of the presentation.

Coding Tip

Acute respiratory distress, reported with code R06.03 Acute respiratory distress, is distinctly separate from the more life-threatening condition referred to as acute respiratory distress syndrome (ARDS), reported with J80. Hypoxemia, dyspnea, and fluid buildup associated with ARDS cause dangerously low levels of oxygen in the blood, threatening organ function, while respiratory distress (acute) is not associated with inadequate oxygen supply but refers only to breathing difficulty.

Documentation Tip

When the phrase respiratory distress is documented on the medical record of a critically ill patient or those with acute lung injury (ALI), review the chart for signs of severe hypoxia, and/or pulmonary edema, and clarify whether acute respiratory distress syndrome (ARDS) may be applicable.

Note: ICD-10-CM no longer classifies ARDS and acute respiratory failure following trauma and surgery in the same category. Also, acute respiratory failure due to trauma no longer has a separate code. Category J96 Respiratory failure,

SIRS of Noninfectious Origin

R65.10	Systemic inflammatory response syndrome [SIRS] of noninfectious origin without acute organ dysfunction	CC HCC
R65.11	Systemic inflammatory response syndrome [SIRS] of noninfectious origin with acute organ dysfunction	MCC HCC

Associated terminology: SIRS due to noninfectious pancreatitis; SIRS due to burns; SIRS due to aspiration pneumonia without superimposed bacterial infection; SIRS due to medication; postoperative SIRS due to surgery

Discussion

Systemic inflammatory response syndrome (SIRS) is the body's inflammatory reaction in response to an assault by chemical, traumatic, or infectious stimuli. The first stage of the physiological response is directed at repair and protection; the second stage is homeostasis; if homeostasis is not achieved, during the third stage the system begins to self-destruct, which leads to end organ dysfunction. SIRS due to a noninfectious etiology is reported using subcategory R65.1 Systemic inflammatory response syndrome (SIRS) of noninfectious origin, when it meets clinical criteria and is supported by the clinical scenario. Documentation of "severe SIRS" implies acute end organ dysfunction; therefore, confirm any acute organ dysfunction and its etiology, whether the organ dysfunction is due to SIRS or due to another condition impacts reporting. Some populations with SIRS may not meet standard clinical criteria on admission: extremes of age, immunosuppressed patients, and diabetics may all present without routine signs and symptoms. Medications that a patient is on may also mask some of the symptoms.

Documentation Tip

When documentation and clinical criteria do not match, query the provider for clarification of the diagnosis.

When SIRS due to noninfectious condition is present with an associated infection which results in severe sepsis, only a code from subcategory R65.2 Severe sepsis, will be assigned and the sequencing will be determined by the circumstances of the admission and following official coding guidelines for chapters 1, 18, 19 and section II "Selection of Principal Diagnosis." See also the section for severe sepsis in this publication for further guidance regarding SIRS due to an infectious process.

For SIRS due to noninfectious condition (not all inclusive):

- Code first the underlying condition (without subsequent infection).
- Sequence R65.10 Systemic inflammatory response syndrome (SIRS) of noninfectious origin without acute organ dysfunction, or R65.11 Systemic inflammatory response syndrome (SIRS) of noninfectious origin with acute organ dysfunction, as additional code; these codes are never sequenced first.
- When R65.11 is assigned, report all codes for the documented associated acute organ dysfunctions; the link must be made between the SIRS and the acute organ dysfunction in order to assign R65.11; query when the etiology of the acute organ dysfunction is unclear.
- When a noninfectious condition leads to a subsequent infection, which then results in severe sepsis, assign a code from subcategory R65.2 Severe sepsis, without a code from subcategory R65.1 Systemic inflammatory response syndrome (SIRS) of noninfectious origin, as only one code from category R65 Symptoms and signs specifically associated with systemic inflammation and infection, should be assigned per encounter.
- When the noninfectious condition develops a subsequent local infection (present on admission=N), which results in severe sepsis, sequence the noninfectious condition as principal diagnosis, followed by a code for sepsis, then the underlying local infection, followed by a code from subcategory R65.2.
- When the noninfectious condition and its associated local infection are both present on admission with the infection resulting in severe sepsis, and both meet the definition of principal diagnosis, sequence either the noninfectious condition or the associated local infection as principal, followed by a code for sepsis and R65.2.
- When the noninfectious condition, the associated local infection, and severe sepsis are all present on admission, and all meet the definition of principal diagnosis, then any one can be sequenced as principal diagnosis, followed by R65.2.
- When combined etiologies are present (noninfectious and infectious), and it is not clear if SIRS is due to noninfectious condition or severe sepsis, query for clarification and if it was present on admission.

Bronchoalveolar Lavage (BAL)/Bronchial Washing

Drainage. *Taking or letting out fluids and/or gases from a body part, the qualifier DIAGNOSTIC is used to identify drainage procedures that are biopsies*

Approach (bronchoscopy). *Via natural or artificial opening endoscopic*

0B9* Drainage/Respiratory System

Procedure: bronchoalveolar lavage (BAL) for biopsy of alveoli; biopsy of the bronchial tree, bronchial washing

Discussion

Bronchoscopy with alveolar lavage, or bronchoalveolar lavage, is a diagnostic procedure that uses repeated instillation and aspiration of lavage fluid to target specific smaller airways to obtain cells and noncellular components such as airway secretions from the epithelial surface of the lower respiratory tract for microbiological, cytological or immunological analysis.

In a bronchoalveolar lavage, the airway is anesthetized with a topical anesthetic and a flexible fiberoptic or rigid bronchoscope (a long, thin tube that has a close-focusing telescope on the end for viewing) is introduced via Natural or Artificial Opening Endoscopic approach through the nasal or oral cavity, or a tracheostomy stoma. The bronchoscope is advanced through the nasal or oral cavity, or tracheostomy stoma past the larynx to inspect the bronchus. The procedure may employ fluoroscopic guidance.

After visualizing the bronchus, the practitioner samples alveolar lung tissue by irrigating with saline in small aliquots or subsets of the total fluid volume, followed by carefully suctioning the fluid. The suctioned fluid is sent for biopsy. The bronchoscope is removed. The root operation Drainage is used for this biopsy as the intent of the procedure is to withdraw fluid rather than tissue for diagnostic purposes.

As BAL involves washing out and sampling the alveoli of the lung, the lung body part values more appropriately capture the objective of the procedure.

Bronchial washing is a diagnostic procedure that uses repeated instillation and aspiration of lavage fluid to obtain cells and noncellular components such as airway secretions from the epithelial surface of the bronchial tree for microbiological, cytological, or immunological analysis.

Both bronchoalveolar lavage (BAL) and bronchial washing biopsies are performed with the same technique. The difference between them lies with the body part that is being biopsied. While the BAL removes fluid from the alveoli, which is considered part of the lung body part, the bronchial washing is performed only through the bronchus.

Coding Tip

Use the sixth character device value No Device (Z) since there is no drainage device left in after the procedure. Use the seventh character qualifier value Diagnostic (X) to identify the biopsy for BAL and bronchial washing.

Documentation Tip

When documentation does not state bronchoalveolar lavage or BAL, but does describe the use of a bronchoscope to instill saline and obtain a biopsy, ensure that the bronchial body parts involved are identified.

Additional References

AHA CC: 3Q, 2017, p. 15; 1Q, 2017, p. 51; 1Q, 2016, p. 26

* Indicates the ICD-10-PCS table where the remainder of the code is constructed.

Acute Myocardial Infarction Example

Request for Documentation Clarification

THIS FORM IS A PERMANENT PART OF THE MEDICAL RECORD

Dear Physician/PA/NP: _____ or other responsible provider:

When responding to this query, please exercise your independent professional judgment. The fact that a question is asked does not imply that any particular answer is desired or expected. Please complete, sign, date, and time the query. Thank you for your assistance with clarification of this issue.

Please clarify the following documentation or clinical data noted in the medical record.

Patient admitted for cardiac cath to evaluate CAD.

Procedure note and progress notes state acute MI during catheterization.

Tropoionins elevated.

ECG +

Aspirin, nitroglycerine (NTG), beta blocker, oxygen regimen started.

Discharge Summary: Cath performed, CAD, AMI

CDI Analyst/Coder: _____ Date: _____ Time: _____

MD/PA/NP Response (Check any that apply.)

Based on your medical judgment and review of the clinical indicators above, please clarify the diagnosis.

CHECK ALL THAT APPLY

- Non-ST elevation (NSTEMI) MI (Type 1) present prior to procedure
- ST elevation (STEMI) MI (Type 1) present prior to procedure
- Anterior wall, left main
- Anterior wall, LAD
- Anterior wall, other
- Inferior wall, RCA
- Inferior wall, other
- Left circumflex
- Other site
- Unspecified site
- Type 2 MI present prior to procedure (myocardial infarction due to demand ischemia or secondary to ischemic balance) with underlying cause (please specify underlying cause) _____
- Any type of above MI (check appropriate type/site above if known) occurring during procedure due to disease process, not related to any current/past procedure.
- AMI (Type 4, 5) associated with/related to current or past procedure (CABG, stent restenosis, catheterization, stent thrombosis etc)
- Clinically undetermined—patient death before study (Type 3)
- Other (please specify) _____

Physician/PA/NP Printed Name: _____

Physician/PA/NP Signature: _____ Date: _____ Time: _____

Appendix E. Abnormal Laboratory Values

This section provides a reference range of normal laboratory values and associated conditions that may function as an MCC/CC condition should the laboratory values be abnormal. To assist the coder in determining if an MCC/CC condition exists, signs and symptoms, and treatments associated with abnormal labs are listed. According to coding guidelines, these MCC/CCs must affect patient care in terms of requiring clinical evaluation; therapeutic treatment; further evaluation by diagnostic studies, procedures, or consultation; extended length of stay; or increased nursing care; and/or monitoring for reporting purposes.

Note: Reference ranges provided in Appendix E are from a combination of established official medical sources and national diagnosis foundations; be sure to reference your own hospital-approved or facility-approved reference range for each lab value.

Acetones or Ketones—Blood—Increased Level

Reference Range: 0.3-2.0 mg/dL Negative (A); 2-4 mg/dL Negative (K)

Condition	Signs & Symptoms	Treatment
Ketoacidosis	Excessive thirst, polyuria, irritability, weakness, coma, stupor, dehydration, fruity breath odor	Restricted diet, monitoring of blood sugar levels
Ketosis, alcoholic	Vomiting and dehydration in association with other symptoms of alcoholism such as delirium tremens and cirrhosis	Intravenous infusion of normal saline and glucose

Acid Phosphatase—Blood—Increased Level

Reference Range: 0-0.8 Units/L

Condition	Signs & Symptoms	Treatment
Failure, renal, chronic, Stage IV, V ESRD	Bruising, dyspnea, lethargy, weakness, anorexia, polyuria, hematuria	Fluid restrictions, dialysis, transfusion(s) of blood and blood components

Albumin—Blood—Decreased Level

Reference Range: 3.5-5.0 g/dL

Condition	Signs & Symptoms	Treatment
Burns, by extent of body surface involved	Can result from thermal, electrical, or chemical injuries; severity is determined by the size and depth of the burn	Reverse isolation, skin grafts, intravenous fluids, invasive monitoring, high protein/high calorie diet
Syndrome, nephrotic	Edema, lethargy, anorexia, orthostatic hypotension	Diuretics, steroid therapy, sodium-restricted high protein diet, frequent urine protein monitoring

Aldosterone—Blood—Increased Level

Reference Range: 8.1-15.5 ng/dL

Condition	Signs & Symptoms	Treatment
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

Appendix F. Pharmacology List

This section enables the coder to quickly review drugs, drug actions, and indications that are often associated with overlooked or undocumented diagnoses. The coder should review the patient's medication record and know what condition the physician is treating with the prescribed medication based on documentation in the medical record. When documentation is lacking, the coder can reference this section to locate the drug, determine the drug action, confirm drug indications, and when necessary query the physician. When applicable, some of the drugs provided in this resource have also been mapped to their appropriate Z code for long-term drug use.

This section enables the coder to quickly review drugs, drug actions, and indications that are often associated with overlooked or undocumented diagnoses. The coder should review the patient's medication record and know what condition the physician is treating with the prescribed medication based on documentation in the medical record. When documentation is lacking, the coder can reference this section to locate the drug, determine the drug action, confirm drug indications, and when necessary query the physician.

Drug	Z Code	Drug Action/Classification	Indications
5-fluorouracil (5-FU) [fluorouracil]	Z79.631	Antimetabolite agent	Skin, colorectal, breast, stomach, and pancreas cancer
6-mercaptopurine (6-MP) [mercaptopurine]	Z79.631	Antimetabolite agent	Acute lymphoblastic leukemia
Abilify [aripiprazole]		Antipsychotic	Depression; bipolar I disorder; schizophrenia; autism symptoms
Acarbose [acarbose]	Z79.84	Oral hypoglycemic	Diabetes mellitus
Acetaminophen with codeine [acetaminophen/codeine phosphate]	Z79.891	Analgesic, narcotic	Moderate to severe pain
Aclasta [zoledronic acid]	Z79.83	Bisphosphonate	Osteoporosis in postmenopausal women; Paget's disease
Actemra [tocilizumab]	Z79.620	Immunosuppressive biologic/monoclonal antibody	Rheumatoid arthritis; systemic sclerosis-associated interstitial lung disease; giant cell arteritis; polyarticular or systemic juvenile idiopathic arthritis; cytokine release syndrome; COVID-19 for certain pediatric and adult populations
Actimmune [interferon gamma-1b]	Z79.69	Other immunosuppressant/immunomodulator	Chronic granulomatous disease; malignant osteopetrosis
Activella [estradiol/norethindrone acetate]	Z79.890	Estrogen therapy	Menopause symptoms; vaginal and vulvar atrophy; osteoporosis prevention
Actonel [risedronate sodium]	Z79.83	Bisphosphonate	Osteoporosis; Paget's disease
Actoplus Met [metformin hydrochloride/pioglitazone hydrochloride]	Z79.84	Oral hypoglycemic	Diabetes mellitus
Actos [pioglitazone hydrochloride]	Z79.84	Oral hypoglycemic	Diabetes mellitus
Aczone [dapsone]		Acne agent, topical	Acne vulgaris
Adderall XR [amphetamine aspartate and sulfate/dextroamphetamine saccharate and sulfate]		CNS stimulant	Attention deficit hyperactivity disorder (ADHD)
Adralary [donepezil hydrochloride]		Acetylcholinesterase/cholinesterase inhibitors	Dementia due to Alzheimer's
Admelog [insulin lispro]	Z79.4	Insulin	Diabetes mellitus
Advair [fluticasone propionate/salmeterol xinafoate]	Z79.51	Corticosteroid – inhaled/antiasthmatic	Prophylaxis and treatment of asthma and COPD
Advil [ibuprofen]	Z79.1	Nonsteroidal anti-inflammatory drug (NSAID)	Pain or fever relief
Afrezza [human insulin recombinant]		Insulin – inhaled	Diabetes mellitus
Agamree [vamorolone]	Z79.52	Corticosteroid	Duchenne muscular dystrophy