# CDEI

Certified Documentation Expert Inpatient (CDEI)®

# STUDY GUIDE

2025

# Contents

# Introduction

AAPC would like to introduce the Certified Documentation Expert Inpatient (CDEI)™ Certification Study Guide. This material was developed to help prepare billers/coders and other medical professionals prepare for the CDEI Certification Exam.

The Certified Documentation Expert Inpatient (CDEI) credential validates expertise in reviewing inpatient documentation for accuracy to support coding and clinical requirements. CDEI professionals provide feedback to providers to improve clinical documentation and facilitate ongoing documentation improvement to meet all requirements of the medical record. To become a CDEI, documentation professionals must demonstrate knowledge of pathophysiology, inpatient coding and billing guidelines, and healthcare payment models.

CDEIs demonstrate knowledge of:

- Expertise in reviewing medical documentation for accuracy
- The ability to identify and communicate documentation deficiencies to providers to improve documentation for accurate coding
- A sound knowledge of medical coding guidelines and regulations, including those specific to inpatient settings
- A grasp of compliance and reimbursement concepts impacting the inpatient revenue cycle
- A thorough understanding of anatomy, pathophysiology, and medical terminology necessary to correctly code using ICD-10-CM and ICD-10-PCS

Chapter 1

# Purpose of Clinical Documentation Improvement

Clinical documentation improvement is a prevailing topic in the healthcare industry. Clinical documentation is the catalyst for coding, billing, and auditing and is the conduit for and provides evidence of the quality and continuity of patient care. This study guide was created to prepare experienced coders, auditors, and clinical professionals for the Certified Documentation Expert Inpatient (CDEI)® certification exam. Individuals who hold a CDEI™ credential are clinical documentation improvement (CDI) experts for inpatient services performed in the hospital setting. The competencies tested on the CDEI™ exam covered in this training include benefits of CDI programs, documentation requirements, quality measures, payment methodologies, and clinical conditions including common signs and symptoms, typical treatment, documentation tips and coding concepts.

Coding and reimbursement professionals are at the center of clinical documentation improvement. This aspect of healthcare services not only includes coding and billing, but also reaches beyond to include the documentation of quality and improvement of care. If a CDI specialist, coder, or auditor does not understand what is in the chart, it is their responsibility to learn. Having a sound foundation in pathology, physiology, medical terminology, and treatment options is a must for the CDEI™ skillset.

Clinical documentation improvement is a proactive measure. There must be consistency and attention to detail to improve clinical documentation. The focus of documentation improvement should not be solely directed on reimbursement. The central focus of all clinical documentation should be to demonstrate the quality of care provided to the patient with detail and accuracy to facilitate optimum patient care. Reimbursement for inpatient care is directly correlated to a hospital's case mix index (CMI) because a hospital's CMI reflects the severity level of procedures and care required to treat patients. Programs set up with the purpose to maximize revenue may cause compliance risks. Especially if it is determined the program is designed to lead the provider and the facility to upcoding for greater reimbursement. The more severe the condition and costly the care provided the greater reimbursement will be. Because of compliance issues, successful CDI programs focus on supporting the documented clinical conditions, treatment and management of provided conditions, and outcomes of treatment. This results in an accurate CMI, among other positive effects.

Every facility should have a designated clinical documentation expert; sometimes called a clinical documentation specialist (CDS). Job titles may vary for this position, others include quality assurance auditors, DRG validation auditor, quality improvement auditors, and clinical record auditors. Throughout this training, CDEI™ will be used to refer to clinical documentation specialist in the inpatient setting.

If the facility is relatively large, a team of individuals working together for clinical documentation improvement can manage compliance. The CDEI™ must be knowledgeable in the hospital setting in which they are working, and able to understand the requirements for coding and reporting, including following the proper inpatient coding guidelines. The CDEI™ must also be proficient in the areas of terminology, anatomy, and pathophysiology, to better understand the clinical component of conditions and treatments. This will help to accurately report procedures as well as comorbidities.

The CDEI™ will develop and monitor policies and procedures affecting the documentation process. Facilities may have different needs based on the type of hospital and the services provided. CDI should begin at the front end of all services and care; therefore, prevention of documentation deficiencies is the key. CDEIs™ will work with all individuals within the facility who play a role in the documentation process.

## The Role of the Clinical Documentation Expert Inpatient

Many facilities will employ a CDEI™ to work in tandem with auditors and coding professionals. The responsibilities of the CDEI, the auditor, and even the HIM coder may overlap; however, there are fundamental differences in the responsibilities for each position.

The CDEI™ looks at the record with a different objective. The CDEI's responsibilities are more proactive and include:

- Perform preliminary chart reviews and then ongoing reviews to support clear documentation of the patient's condition. This may include:
- Clarifying the support of clinical indicators
- Clarifying the documented support of the diagnosis listed
- Clarifying POA status, when necessary
- Assign preliminary ICD-10-CM and ICD-10-PCS codes to establish a working Medicare Severity Diagnosis Related Group (MS-DRG). The coding department will verify and finalize what is reported.
- Work with the quality department to address real-time documentation deficiencies for quality measures.

- Complete concurrent queries when the documentation does not support a diagnosis or procedure, or when there is evidence of a deficiently documented diagnosis or procedure that requires a practitioner to clarify.
- Work with providers to minimize inappropriate cloning practices.
- Review denials and work with revenue cycle to respond to denials as well as work with practitioners to improve documentation going forward to prevent further denials.

These lists are not all inclusive. Depending on the CDI program, additional responsibilities may be required.

## Benefits of an Effective CDI Program

Implementing a CDI program in your facility will impact different areas of the organization. Hospitals with an effective CDI program can see a reduction of denials, improvement of reimbursement based on proper code selection, and quality measurement compliance. CDI programs have been growing for the past several years and they have become accepted in different hospitals throughout the United States.

The benefits of a CDI program include:

- Supporting documentation of ICD-10-CM code selection
- Supporting documentation of ICD-10-PCS code selection
- Proper MS-DRG reimbursement
- Improvement in quality measures
- Avoidance of denials
- Superior physician communication
- Decrease in physician queries
- Opportunity for internal growth

The CDEI™ must be able to aim for the goals listed above for an effective CDI program. As mentioned previously, the overall objective is to improve documentation for patient care.

# Documentation Quality

Quality assurance in patient care is only evident if it is documented in the medical record. Quality services may have been provided; however, if this is not evident within the medical record, problems may arise.

Records are scrutinized by multiple entities. Providers and facilities are being challenged to put their best foot forward in many ways. The only evidence the providers have of their veracity and the quality of care provided is the medical record.

When it comes to understanding the reimbursement methodology for inpatient services, the CDEI™ should understand Medicare Severity Diagnosis Related Groups (MS-DRGs), the CMI, and the correlating relative weights. The MS-DRG is based on the selection of the principal diagnosis, the conditions being treated throughout the stay which can be classified as complications or comorbidities (CC) or major complications or comorbidities (MCC). The type of surgical procedures patients undergo can also impact the selection of the MS-DRG and therefore the reimbursement to the hospital.

The purpose of CDI is primarily documentation improvement and integrity, which supports better patient care and facilitates continuity of care. Because the medical record is a legal document and used for more than tracking a patient's care during admission, there are additional reasons to maintain its quality.

Requests for medical records come from many sources, for different reasons other than reimbursement. For example:

- CMS contractors
- Patients
- Attorneys
- Other providers
- Workers' compensation
- Payers for precertification
- Pre-employment applications
- Military application
- SSI applications

Incomplete, cloned, or deficient records, regardless of the type of deficiency or errors providing evidence of non-compliance, are a very poor representation of the clinician or the facility. The goal for the CDEI™ is to work with the facilities, practitioners, clinicians, and staff in the entire documentation process to facilitate excellence and compliance in the documentation of all medical records entries.

In addition to facilitating high quality patient care, a properly documented medical record verifies and documents the services that are provided. The medical record may be used to validate:

- Level of care
- Medical necessity for the services provided
- Coding accuracy
- Identity of the provider

The federal government requires hospitals to participate in the Conditions of Participation (CoP) in order to receive federal money (i.e., Medicare). Therefore, each facility must adhere to standards.

According to Title 42, Chapter IV, Subchapter G, Part 428.24 (c), Condition of Participation: Medical record services:

**(c) Standard: Content of record.** The medical record must contain information to justify admission and continued

Chapter 3

# Provider Communication and Compliance

## Introduction

A proficient CDEI™ must understand the complexities of provider communication and compliance regulations in the healthcare system. This section will cover federal regulations, the Office of Inspector General (OIG), compliance plans, and physician queries.

## Federal Regulations

There are many federal departments and regulations regarding fraud, abuse, and compliance that a CDEI™ must be aware of to audit, educate, and make recommendations for clinical documentation improvement. We will discuss the federal False Claims Act (FCA) and Civil Monetary Penalties Law (CMPL). CMS defines fraud as knowingly making false statements or misrepresenting facts to obtain an undeserved benefit or payment from a federal healthcare program. CMS defines abuse as an action resulting in unnecessary costs to a federal healthcare program, either directly or indirectly.

CMS examples of fraud:

- Billing for services and/or supplies that you know were not furnished or provided
- Altering claim forms and/or receipts to receive a higher payment amount
- Billing for services at a higher level than provided or necessary
- Misrepresenting the diagnosis to justify payment
- Making referrals for certain designated services that are prohibited

CMS examples of abuse:

- Misusing codes on a claim
- Charging excessively for services or supplies
- Billing for services that were not medically necessary
- Failure to maintain adequate medical or financial records
- Improper billing practices
- Billing Medicare patients a higher fee schedule than non-Medicare patients

A CMS Medicare Learning Network® article outlining fraud and abuse can be found at www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnproducts/downloads/fraud-abuse-mln4649244.pdf.

## Federal False Claims Act (FCA)

Also called the Lincoln Law, the False Claims Act (31 U.S.C. §§ 3729–3733) was enacted in 1863 to combat fraud by suppliers of goods to the Union Army during the U.S. Civil War. For example, some war profiteers were shipping defective weapons, or selling sick mules and horses (and even selling the same animals multiple times) to the Union Army. Following the Civil War, the statute was little used: In 1943, amendments were made to the FCA that made it more difficult to bring action. In 1986, among news of rampant fraud in government contracts, Congress enacted an overhaul of the statute that generated new fraud investigations and actions.

The statute is in title 31 (Money and Finance), subtitle III (Financial Management), chapter 37 (Claims), subchapter III (Claims Against the United States Government) of the United States Code (31 U.S.C. §3729(a).1). The statute begins by defining seven types of conduct that create liability under FCA. It states that any person is liable who:

(A) Knowingly presents, or causes to be presented, a false or fraudulent claim for payment or approval;

(B) Knowingly makes, uses, or causes to be made or used, a false record or statement material to a false or fraudulent claim;

(C) Conspires to commit a violation of subparagraph (A), (B), (D), (E), (F), or (G);

(D) Has possession, custody, or control of property or money used, or to be used, by the government and knowingly delivers, or causes to be delivered, less than all of that money or property;

(E) Is authorized to make or deliver a document certifying receipt of property used, or to be used, by the government and, intending to defraud the government, makes or delivers the receipt without completely knowing that the information on the receipt is true;

(F) Knowingly buys, or receives as a pledge of an obligation or debt, public property from an officer or employee of the government, or a member of the Armed Forces, who lawfully may not sell or pledge property; or

(G) Knowingly makes, uses, or causes to be made or used, a false record or statement material to an obligation to pay or transmit money or property to the government, or knowingly conceals or knowingly and improperly avoids

or decreases an obligation to pay or transmit money or property to the government.

Relative to healthcare services, examples of fraud or misconduct subject to the False Claims Act include:

- Falsifying a medical chart notation
- Submitting claims for services not performed, not requested, or unnecessary
- Submitting claims for expired drugs
- Upcoding and/or unbundling services
- Submitting claims for physician services performed by a non-physician provider (NPP) without regard to incident-to guidelines

Section 3729 a.1.G, above, is known as the "reverse false claims" section. It provides liability where a person acts improperly to *avoid* paying money owed to the government.

The FCA is not violated merely by submitting a false claim, but rather by submitting (or causing to be submitted) a false claim *with knowledge that it is false*. Section 3729 b.1 defines the terms "knowing" and "knowingly" such that a person must act in deliberate ignorance of the truth or falsity of the relevant information or acts in reckless disregard of the truth or falsity of the information; however, the act states that a violation may occur *even if there no intent to defraud*.

The statute originally provided for a civil penalty of not less than $5,000, and not more than $10,000, per claim, plus three times the amount of the government damages if FCA liability was found. This amount is occasionally increased based on the Federal Civil Penalties Inflation Adjustment Act (FCPIA). Current penalties are $13,946 to $27,894 per claim. The person in violation will also be liable for the costs of the civil action brought to recover any such penalty or damages. The FCA also contains a criminal statute that can result in criminal penalties.

The FCA allows for reduced penalties (mitigation) if the person committing the violation self-discloses. §3729 a.2 states the court may assess not less than two times the amount of damages (as opposed to three times), which the government sustains because of the act of that person, if:

(A) The person responsible furnishes officials of the United States responsible for investigating false claims violations with all information known to such person about the violation within 30 days after the date on which the defendant first obtained the information;

(B) Such person fully cooperates with the investigation of such violation; and

(C) At the time such person furnishes the information about the violation, no criminal prosecution, civil action, or administrative action has commenced under this title with respect to such violation, and the person did not have actual knowledge of the existence of an investigation into such violation.

Section 3730 describes the civil actions for false claims. The provisions for *qui tam* are in §3730 b-d, which states that a person may bring a civil action for a violation for themselves and for the United States government. The FCA refers to the person bringing the *qui tam* as a relator. The relator is more commonly referred to as a "whistleblower."

The statute states, "A copy of the complaint and written disclosure of substantially all material evidence and information the person possesses shall be served on the government." This is to ensure that the government is provided with enough information to properly investigate the claim to determine if they will intervene. The complaint is filed in camera, under seal, and kept from the defendant until the court orders the complaint to be served. The Department of Justice (DOJ) then has 60 days to investigate and intervene (proceed with action) against the defendant. It can seek extensions to the 60-day period, if necessary. The government must notify the court if it is proceeding with the action (intervening) or declining to take over action. The relator may proceed with the action, alone, if the government declines.

If the government intervenes, it has the primary responsibility for prosecuting the *qui tam* action. The government may dismiss or settle the action with the defendant over the objection of the relator, as long as the relator is given a hearing and the court determines the government's actions to be fair. The relator's involvement in the litigation may be limited by request of the government or the defendant, with cause.

The reward for a relator in an action in which the government intervenes is between 15 and 25 percent of the amount recovered by the government through the *qui tam* action. The amount will depend upon the extent to which the relator substantially contributed to the prosecution. If the government does not intervene, the relator's share is between 25 and 30 percent of the amount recovered. Payment to the relator is made from the proceeds received from the defendant.

**EXAMPLE**

A qui tam action is brought. The government intervenes and is successful in recovering $117 million. The government decides the relator heavily contributed to the prosecution with evidence of the fraudulent activity and testimony in the case. The relator is awarded 20 percent of the proceeds, which would equate to $23.4 million.

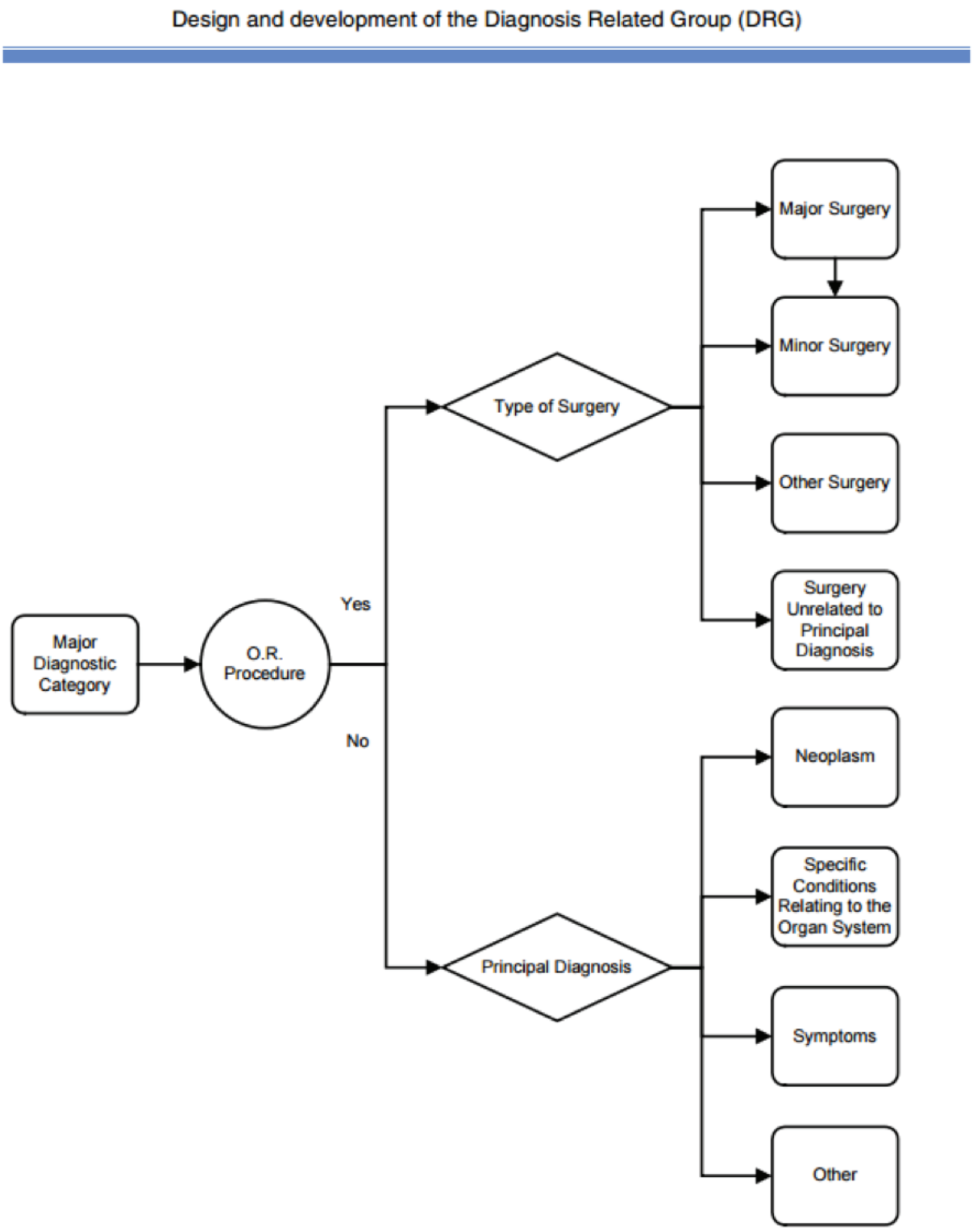


*Figure 1: Typical DRG structure for a Major Diagnostic Category*

## Example list of MCC

**Table 6I—MAJOR CC LIST**

| Code | Description |
|---|---|
| A02.1 | Salmonella sepsis |
| A02.21 | Salmonella meningitis |
| A02.22 | Salmonella pneumonia |
| A06.4 | Amebic liver abscess |
| A06.5 | Amebic lung abscess |
| A06.6 | Amebic brain abscess |
| A17.0 | Tuberculous meningitis |
| A17.1 | Meningeal tuburculoma |
| A17.81 | Tuberculoma of brain and spinal cord |
| A17.82 | Tuberculous meningoencephalitis |
| A17.83 | Tuberculous neuritis |
| A17.89 | Other tuberculosis of nervous system |
| A18.31 | Tuberculous peritonitis |

## Example of CC list

**Table 6J—CC LIST**

| Code | Description |
|---|---|
| A00.0 | Cholera due to vibrio cholerae 01, biovar cholerae |
| A00.1 | Cholera due to vibrio cholerae 01, biovar eltor |
| A00.9 | Cholera, unspecified |
| A01.00 | Typhoid fever, unspecified |
| A01.01 | Typhoid meningitis |
| A01.02 | Typhoid fever with heart involvement |
| A01.03 | Typhoid pneumonia |
| A01.04 | Typhoid arthritis |
| A01.05 | Typhoid osteomyelitis |
| A01.09 | Typhoid fever with other complications |
| A01.1 | Paratyphoid fever A |
| A01.2 | Paratyphoid fever B |
| A01.3 | Paratyphoid fever C |
| A01.4 | Paratyphoid fever, unspecified |
| A02.0 | Salmonella enteritis |
| A02.23 | Salmonella arthritis |
| A02.24 | Salmonella osteomyelitis |
| A02.25 | Salmonella pyelonephritis |
| A02.29 | Salmonella with other localized infections |
| A02.8 | Other specified salmonella infections |
| A02.9 | Salmonella infection, unspecified |
| A03.0 | Shigella due to Shigella dysenteriae |

Chapter 6

# Introduction to ICD-10-CM Coding

## Introduction

ICD-10 was endorsed by the 43rd World Health Assembly in May 1990 and came into use in World Health Organization (WHO) Member States in 1994. The classification is the latest in a series, originating in the 1850s. The first edition, known as the International List of Causes of Death, was adopted by the International Statistical Institute in 1893. The WHO took over responsibility for ICD at its creation in 1948 when the Sixth Revision, which included causes of morbidity for the first time, was published. The World Health Assembly adopted in 1967 the WHO Nomenclature Regulations stipulating use of ICD in its most current revision for mortality and morbidity statistics by all member states.

The ICD is the international standard diagnostic classification for all general epidemiological, many health management purposes, and clinical use. These include the analysis of the general health situation of population groups and monitoring of the incidence and prevalence of diseases and other health problems in relation to other variables such as the characteristics and circumstances of the individuals affected, reimbursement, resource allocation, quality, and guidelines.

It is used to classify diseases and other health problems recorded on many types of health and vital records, including death certificates and enables the storage and retrieval of diagnostic information for clinical, epidemiological, and quality purposes. These records also provide the basis for the compilation of national mortality and morbidity statistics by WHO member states.

The National Center for Health Statistics (NCHS) developed ICD-10-CM (International Classification of Diseases, Tenth Revision, Clinical Modification) in consultation with a technical advisory panel, physician groups, and clinical coders to assure clinical accuracy and utility. There are no codes for procedures in the ICD-10-CM and procedures are coded using the procedure classification appropriate for the encounter setting (Current Procedural Terminology, or CPT®, and ICD-10-PCS).

During this chapter, we will discuss:

- Overview of the ICD-10-CM layout
- ICD-10-CM conventions
- How to look up an ICD-10-CM code
- Official ICD-10-CM coding guidelines

## Overview of ICD-10-CM Layout

ICD-10-CM is published in two sections:

1. Alphabetic Index or Index to Diseases and Injuries: Diagnostic terms organized in alphabetic order for the disease descriptions in the Tabular List. The terms Alphabetic Index and Index to Diseases and Injuries are used interchangeably throughout this text.
2. Tabular List: Diagnosis codes organized in numerical order and divided into chapters based on body system or condition.

ICD-10-CM is used by all coders to assign diagnosis codes that establish medical necessity for services rendered. In other words, diagnosis codes support why a service was rendered. For example, a patient has a bad cough and congestion. The provider performs a chest X-ray. On the claim form, the coder assigns diagnosis codes for the documented cough and congestion, which support the service. We will discuss the proper selection of ICD-10-CM codes later in this chapter.

Establishing medical necessity is the first step in third-party reimbursement. Payers require the following information to determine the need for care:

1. Knowledge of the emergent nature or severity of the patient's complaint or condition.
2. All signs, symptoms, complaints, or background facts describing the reason for care, such as required follow-up care. These facts must be substantiated by the patient's medical record, which must be available to payers on request.

ICD-10-PCS includes procedure codes and is typically used by facilities for inpatient services. Hospitals use ICD-10-PCS in the outpatient facility for tracking purposes only and do not submit claims using ICD-10-PCS.

We will focus on the proper use of ICD-10-CM in this chapter.

## Tabular List

The Tabular List is a numerical listing of disease and injury. There are 22 chapters for the classification of diseases and injury, grouped by etiology (cause) or anatomical (body) site. The Tabular List is organized in three-character codes and their titles, called category codes. Some three-character codes are

very specific and are not subdivided. These three-character codes can stand alone to describe the condition being coded. Most three-character categories (rubrics) have been subdivided with the addition of a decimal point, followed by up to four additional characters.

Each character for all categories, subcategories, and codes may be either a letter or a number. Codes can be three, four, five, six, or seven characters. The 1st character of a category is a letter. The 2nd and 3rd characters may be either numbers or alpha characters. Subcategories are either four or five characters and may be either letters or numbers. Codes are three, four, five, or six characters and the final character in a code may be either a letter or number. Certain categories have a 7th character extension (discussed later in this chapter). The 4th character in an ICD-10-CM code further defines the site, etiology, and manifestation or state of the disease or condition. The 4th character subcategory includes the three-character category plus a decimal with an additional character to further identify the condition to the highest level of specificity. The 5th or 6th character subclassifications represent the most accurate level of specificity regarding the patient's condition or diagnosis. Certain ICD-10-CM categories have applicable seven characters. The applicable 7th character is required for all codes within the category, or as the notes in the Tabular List instruct. The 7th character must always be in the 7th position. If a code is three, four, or five characters, but requires a 7th character extension, a placeholder X must be used to fill the empty characters. There are symbols throughout the Tabular List to identify when a code requires an additional character.

Examples:

√ 4th F01 Vascular Dementia

√ 5th H21.4 Pupillary membranes

√ 6th I87.00 Postthrombotic syndrome without complications

√ 7th O32.0 Maternal care for unstable lie

## Index to Diseases and Injuries

Main terms in the Alphabetic Index usually reference the disease, condition, or symptom. Subterms modify the main term to describe differences in site, etiology, or clinical type. Subterms add further modification to the main term.

**EXAMPLE**

Look in the Alphabetic Index for Pain(s) (see also Painful) R52

abdominal R10.9

colic R10.83

generalized R10.84

with acute abdomen R10.0

lower R10.30

In this example, the subterms further define the location of pain and type of pain.

## Conventions

To apply the diagnosis coding system correctly, coders need to understand and apply the various conventions and terms. Section I of the official guidelines includes conventions, general coding guidelines, and chapter-specific guidelines.

### NEC Not elsewhere classifiable

This abbreviation is used when the ICD-10-CM system does not provide a code specific for the patient's condition. Selecting a code with the NEC classification means the provider documented more specific information regarding the patient's condition, but there is not a code in ICD-10-CM that reports the condition accurately.

### NOS Not otherwise specified

This abbreviation is the equivalent of "unspecified" and is used only when the coder lacks the information necessary to report to a more specific code.

### [] Brackets - Tabular

**[ ]** Brackets are used in the Tabular List to enclose synonyms, alternate wording, or explanatory phrases.

**EXAMPLE**

√ 5th Z91.89 Other specified personal risk factors, not elsewhere classified.

### [] Brackets - Alphabetic index

**[ ]** Brackets are used in the Alphabetic Index to indicate multiple codes are required.

**EXAMPLE**

Hepatitis

syphilitic (late) A52.74

congenital (early) A50.08 [K77]

late A50.59 [K77]

In this example, two codes are required to accurately report congenital syphilitic hepatitis: A50.08 Early visceral congenital syphilis; and K77 Liver disorders in diseases classified elsewhere.

1. A 78-year-old patient is admitted with symptoms of memory loss, confusion, and difficulty with recall. The patient's family reports a decline in the patient's ability to handle complex tasks and manage their bank account. The patient is diagnosed with Alzheimer's disease. Which of the following conditions is supported by the clinical indicators?

   A. Delirium, due to the patient's confusion and memory loss

   B. Alzheimer's dementia, as the patient's symptoms and family reports indicate a decline in cognitive abilities related to Alzheimer's disease

   C. Vascular dementia, due to the patient's age and symptoms

   D. Major psychiatric disorder, due to the patient's confusion and memory loss

2. A 27-year-old patient presents to the ER with shortness of breath. Oxygen saturation is 92% on room air. The family notes that the patient is confused and has been forgetting things starting the day before arrival. CXR is negative but rapid influenza A (non-novel) screen is positive. The patient is hospitalized for sepsis due to viral pneumonia. The H&P notes encephalopathy of pneumonia.

   What code(s) should be used to report the confusion?

   A. G93.49

   B. G92.8

   C. J10.81, G93.41

   D. J10.81, G94

3. A patient presents with dizziness, sensory changes, and diplopia. CT findings suggest brain herniation. What type of cerebral edema might this patient be experiencing?

   A. Vasogenic cerebral edema

   B. Cytotoxic edema

   C. Acute hydrocephalus

   D. Oncotic cell swelling

4. A patient presents with paroxysmal nocturnal dyspnea, neck vein distention, and weight loss of 4.5 kg within five days in response to diuretic therapy. Ejection fraction (EF) is < 40%. Which type of heart failure might this patient be experiencing?

   A. HFrEF

   B. HFpEF

   C. Right HF

   D. High-output HF

5. A patient presents with chest pain, dizziness, and palpitations. The patient's heart rate is extremely fast and irregular, with the upper chambers of the heart beating more than 400 times per minute. The patient's condition has been intermittent and has stopped on its own within seven days. What type of atrial fibrillation might this patient be experiencing?

   A. Paroxysmal atrial fibrillation

   B. Persistent atrial fibrillation

   C. Chronic atrial fibrillation

   D. Permanent atrial fibrillation

6. A patient presents with chest pain that spreads to the shoulders and arms, indigestion, and fainting. The patient's ECG shows ST depression over 2 mm in over three leads. What might this patient be experiencing?

   A. Heart failure
   B. Heart attack
   C. Angina
   D. Myocardial ischemia

7. A 70-year-old patient with a history of COPD presents with severe shortness of breath, cyanosis, and confusion. The patient's arterial blood gas shows a pO2 of 55 mmHg and a pCO2 of 55 mmHg. What is the most likely diagnosis for this patient?

   A. Acute respiratory failure
   B. Pneumonia
   C. Asthma
   D. Pulmonary embolism

8. A 75-year-old patient with a history of COPD presents with severe shortness of breath. On day two, the patient begins to have confusion and cyanosis. The patient's arterial blood gas shows a pO2 of 57 mmHg and a pCO2 of 53 mmHg.

   What is the most likely principal diagnosis for this patient?

   A. Acute respiratory failure
   B. Pneumonia
   C. Asthma
   D. COPD exacerbation

9. A patient presents with abdominal distention and gas. Auscultation shows a silent abdomen. The patient has not had any recent surgeries. What might this patient be experiencing?

   A. Paralytic ileus
   B. Postoperative ileus
   C. Gall stone ileus
   D. Intestinal obstruction

10. You are reviewing a 10-day stay. This patient was admitted for alcohol abuse. In several of the progress notes, the psychiatrist states alcohol dependence and on the other notes, it states alcohol use. The provider has documented both alcohol dependence and alcohol abuse. What is the next step?

    A. Query the provider.
    B. Code both dependence and abuse.
    C. Code just dependence.
    D. Code just abuse.

11. Which abbreviation is mistaken for 0 (zero), the number 4 (four), or cc?

    A. IU
    B. Q.D.
    C. U, u
    D. MS

Appendix B

# Chapter Questions–Answers and Rationales

## Chapter 1

1. **Answer:** C. Increase in physician queries

   **Rationale:** An effective CDI program aims to improve the quality of clinical documentation, which in turn supports accurate ICD-10-CM and ICD-10-PCS code selection, improves quality measures, helps avoid denials, and enhances physician communication. One of the benefits of an effective CDI program is actually a decrease in physician queries, not an increase. This is because better documentation reduces the need for clarification or additional information from physicians.

2. **Answer:** B. The severity level of procedures and care required to treat patients

   **Rationale:** A hospital's case mix index (CMI) reflects the severity level of procedures and care required to treat patients. The CMI is a crucial factor in determining reimbursement for inpatient care, but it should not be manipulated to maximize revenue, as this can lead to compliance risks. Instead, the focus should be on improving clinical documentation to accurately reflect the quality of care provided to patients.

3. **Answer:** A. To ensure all services provided were medically necessary based on the patient's signs, symptoms, or illness

   **Rationale:** A key responsibility of a CDEI specialist is to review clinical documentation and ensure that the services provided to a patient were valid based on the patient's signs, symptoms, or illness. This is important because any service found unjustifiable risks the possibility of insurance denials. If new conditions are introduced that the provider didn't address, then it will be the responsibility of the CDEI to query the provider based on supporting clinical indicators.

4. **Answer:** A. A concurrent review is done while the patient is receiving care, while a retrospective review is done after the patient is discharged and the claim is processed.

   **Rationale:** The key difference between a concurrent review and a retrospective review lies in the timing of these reviews. A concurrent review is performed while the patient is still receiving care, allowing for immediate queries to providers and updates to the concurrent coding and working MS-DRG. On the other hand, a retrospective review is performed after the patient has been discharged and the claim has been processed. This type of review is often part of an audit function and can help identify education opportunities and improve hospital statistics.

5. **Answer:** B. To ensure accurate and complete clinical documentation within the health record

   **Rationale:** The main role of a CDEI specialist is to ensure that the clinical documentation within the health record is accurate and complete.

6. **Answer:** B. They ensure that the clinical documentation supports the patient's diagnosis and reflects the patient's progress.

   **Rationale:** The CDEI specialist ensures that the clinical documentation supports the patient's diagnosis and reflects the patient's progress, which is crucial for patient care and billing purposes.

7. **Answer:** C. The CDEI ensure that the documentation supports the services billed, leading to accurate billing.

   **Rationale:** A CDEI specialist ensures that the clinical documentation supports the services billed, which leads to accurate billing and prevents overbilling or underbilling.

8. **Answer:** C. The service is the most expensive available.

   **Rationale:** According to the Medicare glossary, medical necessity is defined as healthcare services or supplies needed to diagnose or treat an illness, injury, condition, disease, or its symptoms and that meet accepted standards of medicine. Therefore, a service being the most expensive available is not a factor in determining medical necessity. The focus is on the need for the service in diagnosing or treating a condition and whether it meets accepted medical standards.

9. **Answer:** B. Identify the key stakeholders.

   **Rationale:** The first step in implementing a CDI program is to identify the key stakeholders. These are the individuals or groups who have a vested interest in the success of the program and may include healthcare providers, administrative staff, and patients.

10. **Answer:** C. Educating staff

    **Rationale:** Education is an important part of any compliance program and is the logical next step after problems have been identified. This involves training providers and staff on the importance of detailed and quality documentation, as well as coding and billing practices.

# Practice Examination–Answers and Rationales

1. **Answer:** B. Alzheimer's dementia, as the patient's symptoms and family reports indicate a decline in cognitive abilities related to Alzheimer's disease

   **Rationale:** The correct answer is B. The patient's symptoms and family reports indicate a decline in cognitive abilities related to Alzheimer's disease, which should be documented as Alzheimer's dementia.

2. **Answer:** C. J10.81, G93.41

   **Rationale:** This is influenza A (non-novel) viral pneumonia. G94 has an Excludes1 note. J10.81 includes encephalopathy.

3. **Answer:** A. Vasogenic cerebral edema

   **Rationale:** The symptoms and CT findings suggest vasogenic cerebral edema, where the blood brain barrier is disrupted, causing leakage of fluid from the smaller capillaries.

4. **Answer:** A. HFrEF

   **Rationale:** The symptoms and EF suggest systolic HF (HFrEF), which is characterized by the left ventricle's inability to contract effectively, leading to ineffective ejection of blood out of the heart. The heart failure acronyms are commonly used and the documentation specialist should be familiar with them.

5. **Answer:** A. Paroxysmal atrial fibrillation

   **Rationale:** The symptoms and the intermittent nature of the condition that resolves on its own within seven days suggest paroxysmal atrial fibrillation.

6. **Answer:** D. Myocardial ischemia

   **Rationale:** The symptoms and ECG findings suggest myocardial ischemia, a condition characterized by a lack of blood flow to the heart muscle.

7. **Answer:** A. Acute respiratory failure

   **Rationale:** The patient's symptoms and arterial blood gas findings are indicative of acute respiratory failure, a condition characterized by severe abnormalities in gas exchange.

8. **Answer:** D. COPD exacerbation

   **Rationale:** The COPD exacerbation meets the definition of principal diagnosis. The acute respiratory failure would be a secondary condition.

9. **Answer:** A. Paralytic ileus

   **Rationale:** The symptoms suggest paralytic ileus, a condition where the muscles used to process food through the intestines are temporarily paralyzed, causing food to become trapped in the intestines.

10. **Answer:** C: Code just dependence.

    **Rationale:** Per coding guidelines for Chapter 5 (Mental, Behavioral and Neurodevelopmental Disorders), section b.2: Psychoactive Substance Use, Abuse and Dependence: "When the provider documentation refers to use, abuse and dependence of the same substance (e.g. alcohol, opioid, cannabis, etc.), only one code should be assigned to identify the pattern of use based on the following hierarchy:

    - If both use and abuse are documented, assign only the code for abuse.
    - If both abuse and dependence are documented, assign only the code for dependence.
    - If use, abuse and dependence are all documented, assign only the code for dependence.
    - If both use and dependence are documented, assign only the code for dependence."

11. **Answer:** C. U, u

    **Rationale:** The abbreviation U or u for unit can be mistaken for 0 (zero), the number 4 (four), or cc. Therefore, it is recommended to write unit instead.

12. **Answer:** B. Medication

    **Rationale:** Use of standardized formats for numeric values, such as medication dose designations and laboratory values add precision that reduces the risk of error when interpreting such information. A trailing zero may be used only when required to demonstrate the level of precision of the value being reported, such as for laboratory results, imaging studies that report the size of lesions, or catheter/tube sizes. It may not be used in medication orders or other medication-related documentation.

13. **Answer:** B. Identifies the patient; supports the diagnosis/condition; justifies the treatment; documents the course and results of treatment

    **Rationale:** Per the CMS Interpretive Guidelines, a medical record should identify the patient; support the diagnosis/condition; justify the treatment; and document the course and results of treatment.

    See the CMS INTERPRETIVE GUIDELINES §482.24 for more information.

14. **Answer:** C. The physician is potentially including outdated or inaccurate information in the current note.

    **Rationale:** The correct answer is C. Copying and pasting previous notes can lead to the inclusion of outdated or inaccurate information in the current note, which can result in inaccurate coding and billing.

15. **Answer:** B. Hypokalemia

    **Rationale:** Correct answer is B as patient does not meet clinical evidence of diagnosis of hypokalemia. A patient with hypokalemia will have lab findings of < 3.5 mEq/L, and in this case the patient's potassium was in range (Ref: https://my.clevelandclinic.org/health/diseases/17740-low-potassium-levels-in-your-blood-hypokalemia). The diagnosis of hyponatremia is clinically supported with lab findings of 128 mEq/L (normal range 135-145 mEq/L). Diagnosis of dehydration is clinically supported as the patient had signs and symptoms of weakness and fatigue and physical examination revealed dry mucous membrane along with tachycardia. The diagnosis of hypertension is clinically supported as the patient is currently taking amlodipine, a calcium channel blocker.

16. **Answer:** B. The physician is not individualizing the documentation to each patient's specific condition.

    **Rationale:** Using a pre-filled template for all patients and not individualizing the documentation to each patient's specific condition can lead to inaccurate coding and billing.

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