Includes Case Summary Exercises for Beginning to Intermediate-Level Practice

Downloadable Resources Available

ICD-10-CM and ICD-10-PCS

Coding Handbook 2027

WITH ANSWERS

Nelly Leon-Chisen, RHIA
Denene M. Harper, RHIA
Tammy Love, RHIA, CCS, CDIP
Gretchen Young-Charles, RHIA

Central Office on ICD-10-CM and ICD-10-PCS
of the American Hospital Association

Current Codes as of June 2026

AHA Coding Clinic®

ICD-10-CM AND ICD-10-PCS Coding Handbook *with Answers*

2027 Revised Edition

NELLY LEON-CHISEN, RHIA
DENENE M. HARPER, RHIA
TAMMY LOVE, MSHI, RHIA, CCS, CDIP
GRETCHEN YOUNG-CHARLES, RHIA

CENTRAL OFFICE ON ICD-10-CM AND ICD-10-PCS
OF THE
AMERICAN HOSPITAL ASSOCIATION

HEALTH FORUM, INC.
An American Hospital Association Company
Chicago

Printed in the United States of America—07/2026

COVER DESIGN: Mellissa Dempsey and Martin Musker

INTERIOR DESIGN AND TYPOGRAPHY: Fine Print, Ltd.

COMPOSITION: Westchester Publishing Services

NEW ILLUSTRATIONS FOR THE 2012 AND SUBSEQUENT EDITIONS: Christoph Blumrich

PAPERBACK ISBN: 978-1-55648-552-7, Item Number 148087

EPUB & PDF Item Number P148087

Contents

List of Tables and Figures

About the Authors

Nelly Leon-Chisen, RHIA, is the former executive director of coding and classification at the American Hospital Association (AHA), where for 27 years she headed the Central Office on ICD-10-CM and ICD-10-PCS (formerly Central Office on ICD-9-CM) and the Central Office on HCPCS. She represented the AHA as one of the Cooperating Parties responsible for the development of *AHA Coding Clinic® for ICD-10-CM and ICD-10-PCS,* the *ICD-10-CM Official Guidelines for Coding and Reporting,* and the *ICD-10-PCS Official Coding Guidelines.* As a member of the AHA's policy team, her responsibilities included representing the AHA on national coding committees and analysis and development of comments on annual coding and payment policy changes. She was the executive editor for the *AHA Coding Clinic®* publications. She also served as the AHA subject matter expert and representative on the *CPT Assistant* Editorial Board and CPT Editorial Panel. She has lectured on ICD-9-CM, ICD-10-CM, ICD-10-PCS, present on admission coding, data quality, and diagnosis-related groups (DRGs) throughout the United States, Europe, Asia, and Latin America. She has nearly 50 years of experience in the health information management (HIM) field with experience in hospital inpatient and outpatient management, consulting, and teaching. She has been an instructor in the HIM and Health Information Technology programs for the University of Illinois and Truman Community College, both in Chicago.

Denene M. Harper, RHIA, is the director of coding and classification content at the AHA Central Office on ICD-10-CM and ICD-10-PCS. She currently represents the AHA as one of the Cooperating Parties responsible for the development of *AHA Coding Clinic® for ICD-10-CM and ICD-10-PCS*, the *ICD-10-CM Official Guidelines for Coding and Reporting*, and the *ICD-10-PCS Official Coding Guidelines.* She is the executive editor for the *AHA Coding Clinic®* publications. Ms. Harper has more than 30 years of experience in the HIM field, including hospital-based outpatient and acute care, utilization review, and quality improvement.

Tammy Love, MSHI, RHIA, CCS, CDIP, is the director, coding and classification policy, at the AHA. Among her primary responsibilities with the AHA is facilitating discussions among industry HIM, coding, and clinical documentation improvement (CDI) experts focused on the annual Centers for Medicare & Medicaid Inpatient Prospective Payment Systems (IPPS) proposed rule comment development. She works closely with the AHA Central Office coding team on regulatory and coding topics and facilitates the *AHA Coding Clinic®* Editorial Advisory Boards for HCPCS and ICD-10-CM/PCS. She also serves as the AHA subject matter expert and representative on the *CPT Assistant* Editorial Board and CPT Editorial Panel. Ms. Love has more than 25 years of experience in HIM, coding, auditing, CDI, and regulatory compliance.

Gretchen Young-Charles, RHIA, is a senior coding consultant at the AHA Central Office on ICD-10-CM and ICD-10-PCS. In this role, she develops educational articles on official coding advice for publication in *AHA Coding Clinic® for ICD-10-CM and ICD-10-PCS*. Ms. Young-Charles has more than 30 years of experience in the HIM field. She has worked in numerous HIM roles, including education, quality, and hospital-based outpatient and acute care. She also spent a number of years with the Peer Review Organization for the state of Illinois.

The Central Office on ICD-9-CM was first created through a written Memorandum of Understanding between the AHA and the National Center for Health Statistics in 1963 to do the following:

- Serve as the U.S. clearinghouse for issues related to the use of ICD-9-CM
- Work with the National Center for Health Statistics and the Centers for Medicare & Medicaid Services to maintain the integrity of the classification system

- Recommend revisions and modifications to the current and future revisions of the ICD
- Develop educational material and programs on ICD-9-CM

The Central Office on ICD-10-CM and ICD-10-PCS provides expert advice by serving as the clearinghouse for the dissemination of information on ICD-10-CM and ICD-10-PCS.

In 2014, the Central Office fully transitioned to ICD-10-CM/PCS advice while launching the stand-alone publication *AHA Coding Clinic® for ICD-10-CM and ICD-10-PCS.*

Acknowledgments

The AHA Central Office team gratefully acknowledges the invaluable contributions of Nelly Leon Chisen, the former executive director of coding and classification at the American Hospital Association (AHA).

In addition, the AHA Central Office gratefully acknowledges the significant contributions of Janatha R. Ashton, MS, RHIA, who authored the original case summary exercises in appendix C, and Therese M. (Teri) Jorwic, who revised those exercises and converted them from ICD-9 to ICD-10.

> **Therese M. (Teri) Jorwic, MPH, RHIA, CCS, CCS-P, FAHIMA,** is a former assistant professor in Health Information Management at the University of Illinois at Chicago. She has presented numerous workshops and developed educational material for in-class and online courses on ICD-10-CM/PCS, ICD-9-CM, and HCPCS/CPT coding as well as on reimbursement systems for hospitals, physicians, and other health care providers. She also has presented workshops for associations and served as external faculty for the AHIMA ICD-10 Academy programs.

A sincere thanks to the representatives of the Cooperating Parties: Donna Pickett, RHIA, MPH (in memoriam); Mady Hue, RHIA; and Sue Bowman, RHIA, CCS—whose collaboration and friendship have made *Coding Clinic* advice and the Official Coding Guidelines a reality.

Finally, the AHA Central Office wants to thank and acknowledge Anita Rapier, RHIT, CCS, who retired after more than 30 years with the American Hospital Association (AHA) in 2024. While at the AHA, Anita was the managing editor of *Coding Clinic for ICD-10-CM and ICD-10-PCS* and senior coding consultant at the AHA's Central Office. She was a contributing writer for this handbook and a speaker who made numerous appearances in person and via webinar, including her notable work as a presenter on the AHA Regulatory Update coding webinars. Anita is widely recognized for her expertise and experience in topics such as coding for inpatient and outpatient settings, home health, rehabilitation hospitals, skilled nursing facilities, long-term care acute hospitals, and observation care; clinical documentation; and more. The AHA Central Office deeply misses Anita's professionalism, leadership, dedication, and commitment to health information management. Her contributions will never be forgotten. We wish Anita much happiness in her retirement.

Thanks are also in order for the coding professionals and instructors who were early adopters of this handbook, and who provided many helpful suggestions (and, the author is a tad ashamed to say, corrections) to the early versions of the handbook. Their efforts made this work a better resource for students. Special thanks in this regard are due to Minnette Terlep, Linda Holtzman, Ann Zeisset, Lisa DeLiberto, Margaret Foley, Alicia Reinbolt, Noemi Staniszewski, Pat Poli, and Anne Pavlik.

How to Use This Handbook

This edition of the handbook is designed as a versatile resource:

- Textbook for academic programs in health information technology and administration
- Text for in-service training programs
- Self-instructional guide for individuals who would like to learn coding or refresh their skills outside a formal program
- Reference tool for general use in the workplace

The general and basic areas of information covered in chapters 1 through 10 are designed to meet the requirements of various basic courses on the use of ICD-10-CM and ICD-10-PCS. They may also be used as a foundation for moving on to the study of individual chapters of ICD-10-CM and ICD-10-PCS. Chapters 11 through 32 of the handbook include advanced material for both continuing education students and professionals in the field.

This handbook is designed to be used in conjunction with the ICD-10-CM and ICD-10-PCS coding manuals (either in book or PDF format) or comparable software, as well as the official coding guidelines. The ICD-10-CM and ICD-10-PCS classifications must be consulted throughout the learning process, and the material in this text cannot be mastered without using them. The official versions are available in PDF format from the Centers for Disease Control and Prevention (CDC) National Center for Health Statistics (ICD-10-CM) and the Centers for Medicare & Medicaid Services (ICD-10-PCS). Several publishers offer unofficial printed or online versions. There may be minor variations between the way material is displayed in this handbook and the way it is displayed in printed or digital versions. The *ICD-10-CM Official Guidelines for Coding and Reporting* and the *ICD-10-PCS Official Coding Guidelines*, referenced throughout this handbook, may be downloaded from the Centers for Medicare & Medicaid Services website: www.cms.gov/Medicare/Coding/ICD10.

The chapters in this handbook are not arranged in the same sequence as the chapters in ICD-10-CM or ICD-10-PCS. The first section of the handbook (chapters 1–11) provides discussions on the format and conventions followed in ICD-10-CM and ICD-10-PCS, as well as basic coding guidelines and introductory material on Z codes and External cause of morbidity codes. The next eight sections (chapters 12–32) progress from the less-complicated ICD-10-CM/PCS chapters to the more difficult. Faculty in academic and in-service programs can rearrange this sequence to suit their particular course outlines.

Appendix A, Coding and Reimbursement, contains basic information on the role of coding with reimbursement models for hospitals, physician practices, and other health care settings.

Appendix B, Reporting of the Present on Admission Indicator, contains information on the reporting of the Medicare requirement associated with the hospital inpatient reporting of all ICD-10-CM diagnosis codes.

Appendix C, Case Summary Exercises, is designed for students who have learned the basic coding principles and need additional practice applying the principles to actual cases. The exercises are geared for students with beginning to intermediate levels of knowledge. The case summaries are based on actual health records of both inpatients and outpatients. The patients described often have multiple conditions that may or may not relate to the current episode of care. Some exercises include several episodes of care for a patient in various settings. Instructions for how to use appendix C are provided at the beginning of the appendix.

To use this handbook effectively, readers should work through the coding examples provided throughout the text until they fully understand the coding principles under discussion. Readers should be able to arrive at correct code assignments by following the instructions provided and reviewing the

pertinent handbook material until it is fully understood. Exercises in the body of each chapter should be completed as they come up in the discussion, rather than at the end of the chapter or section. Most chapters provide a review exercise with additional material that covers the entire chapter. There is also a final review exercise, located before appendix A in this handbook, that offers additional coding practice. For chapter exercises, unless otherwise noted, users should assume that the conditions listed are documented by the providers, and they should assign codes for those conditions that meet the definition of reportable diagnoses. Answers to all of these exercises are provided in the edition with answers.

Students using the handbook edition without answers will need to ask their instructors for the answers. After students have completed the exercises, they can check their answers against the instructor's edition, which lists the appropriate codes for each exercise, with the codes for the principal diagnosis and principal procedure sequenced first. In the final review exercise and appendix C, explanatory comments discuss why certain codes are appropriate and others are not and why some conditions listed in the case summaries are not coded at all. The comments also indicate how the principal diagnosis and procedure codes were designated, and which symptoms are inherent to certain conditions and so are not coded separately.

The handbook follows three conventions:

- In some examples, **a hyphen is used at the end of a code to indicate that additional characters are required but cannot be assigned in the example because certain information needed for assignment of these characters is not given.** This is done to emphasize concepts and specific guidelines without going too deeply into specific coding situations.
- **The underlining of codes in text examples indicates correct sequencing;** that is, the underlined code must be sequenced first in that particular combination of codes. When no code is underlined, there is no implicit reason why any of the codes in the series should be sequenced first. In actual coding, of course, other information in the health record may dictate a different sequence. This underlining convention is used in the handbook solely as a teaching device. It is not an element of the ICD-10-CM/PCS coding system.
- In the edition with answers, **the underlining of words in exercise questions indicates the appropriate terms to be referenced in using the alphabetic indexes. The underlining of codes in the answer column of the exercises indicates correct code sequencing,** as it does in the examples in the main text.

Changes in Code Usage

Official coding guidelines approved by the four Cooperating Parties responsible for administering the ICD-10-CM and ICD-10-PCS systems in the United States (American Hospital Association, American Health Information Management Association, Centers for Medicare & Medicaid Services, and National Center for Health Statistics) are published on a yearly basis. The fiscal year 2027 (FY 2027) updates to the ICD-10-CM and ICD-10-PCS code sets have been incorporated into this edition of the handbook.

AHA Coding Clinic® for ICD-10-CM and ICD-10-PCS advice published through Second Quarter 2026 has been included in this edition of the handbook.

Additional Resources

Additional resources for educators who have adopted this handbook for a CAHIIM- or PCAP-accredited program are available for download for free after registration as an educator on the AHA Central Office website: https://www.codingclinicadvisor.com/educator-resources.

AHA offers materials designed to supplement classroom work and exercises in this handbook. Available materials include slide decks covering the key points of each chapter and exercise test banks. Slide deck PDFs and quizzes may also be purchased by any customer at https://www.codingclinicadvisor.com/coding-handbook.

Format AND Conventions AND Current Coding Practices FOR ICD-10-CM AND ICD-10-PCS

CHAPTER 1

Introduction to the ICD-10-CM Classification

CHAPTER OVERVIEW

- ICD-10-CM is a medical diagnosis classification system.
- The Tabular List of Diseases and Injuries displays codes in alphanumeric order. There are three-, four-, five-, six-, and seven-character codes.
- The Alphabetic Index of Diseases and Injuries uses a specific pattern to the indentions.
  - Main terms are flush to the left-hand margin.
  - Subterms are indented. The more specific the subterm is, the farther the indent.
  - Carryover lines are two indents from the indent level of the preceding line.
  - There are also strict alphabetization rules.

LEARNING OUTCOMES

After studying this chapter, you should be able to:

Explain the basic principles of the medical classification system ICD-10-CM.

Demonstrate understanding of the three-, four-, five-, six-, and seven-character subdivisions.

Explain the alphabetization rules and indention patterns.

TERM TO KNOW

ICD-10-CM
International Classification of Diseases, Tenth Revision, Clinical Modification; a medical classification system used for the collection of information regarding disease and injury

INTRODUCTION

The *International Classification of Disease, Tenth Revision, Clinical Modification* (ICD-10-CM) is a clinical modification of the World Health Organization's (WHO's) ICD-10. It expands ICD-10 codes to facilitate more precise coding of clinical diagnoses. ICD-10-CM is a closed classification system—it provides only one place to classify each condition. Despite the large number of different conditions to be classified, the system must limit its size to be usable. Certain conditions that occur infrequently or are of low importance are often grouped together in residual codes labeled "other" or "not elsewhere classified." A final residual category is provided for diagnoses not stated specifically enough to permit more precise classification. Occasionally, these two residual groups are combined in one code.

Medical coding professionals must understand the basic principles behind the classification system to use ICD-10-CM appropriately and effectively. It is therefore important for medical coding professionals in all health care settings to keep current with the *ICD-10-CM Official Guidelines for Coding and Reporting*, as well as the *AHA Coding Clinic*®, a quarterly newsletter published by the Central Office of the American Hospital Association (AHA). *Coding Clinic* presents official advice that is developed through the editorial board for the *Coding Clinic* and approved by the four cooperating parties: the AHA, the American Health Information Management Association (AHIMA), the Centers for Medicare & Medicaid Services (CMS), and the Centers for Disease Control and Prevention's (CDC's) National Center for Health Statistics (NCHS). In addition, representatives from several physician specialty groups provide the *Coding Clinic* editorial advisory board with clinical input.

DEVELOPMENT OF ICD-10-CM

ICD-10 was released by WHO in 1993 and contains only diagnosis codes. ICD-10-CM is the clinical modification developed under the leadership of the NCHS for use in the United States. ICD-10-CM was officially implemented in the United States in October 2015. All modifications to ICD-10 must conform to the WHO conventions for ICD. ICD-10-CM is in the public domain. However, neither the codes nor the code titles may be changed except through the Coordination and Maintenance Process overseen jointly by the CDC and CMS. ICD-10-CM consists of more than 74,000 codes.

FORMAT

ICD-10-CM is divided into the Tabular List and the Alphabetic Index. The Tabular List is an alphanumeric list of codes divided into chapters based on body system or condition. The Index is an alphabetical list of terms and their corresponding codes.

TABULAR LIST OF DISEASES AND INJURIES

The main classification of diseases and injuries in the Tabular List of Diseases and Injuries consists of 22 chapters. (See the table of contents reproduced in figure 1.1.) Approximately half of the first 21 chapters are devoted to conditions that affect a specific body system; the rest classify conditions according to etiology. Chapter 2, for example, classifies neoplasms of all body systems, whereas chapter 10 addresses diseases of the respiratory system only. Chapter 22 contains codes for special purposes.

In addition, Z codes represent factors influencing health status and contact with health services that may be recorded as diagnoses. V, W, X, and Y codes are used to indicate the external circumstances responsible for injuries and certain other conditions. V, W, X, Y, and Z codes are reviewed briefly in chapter 12 of this handbook and in more detail in the chapters discussing the conditions to which they apply.

FIGURE 1.1 Table of Contents from ICD-10-CM

The variation in chapter titles in ICD-10-CM's table of contents represents the compromises made during the development of a statistical classification system based partially on etiology, partially on anatomical site, and partially on the circumstances of onset. The result is a classification system based on multiple axes. In contrast, a single-axis classification would be based entirely on the etiology of the disease, the anatomical site of the disease, or the nature of the disease process.

Codes in the Tabular List appear in alphanumeric order. References from the Alphabetic Index to the Tabular List are by code number, not by page number. Code numbers and titles appear in bold type in the Tabular List. Instructional notes that apply to the section, category, or subcategory are also included in the Tabular List.

Code Structure

All ICD-10-CM codes have an alphanumeric structure, with all codes starting with an alphabetical character. The basic code structure consists of three characters. A decimal point is used to separate the basic three-character category code from its subcategory and subclassifications (for example, L98.491). Most ICD-10-CM codes contain a maximum of six characters, with a few categories having a seventh-character code value.

Each chapter in the main classification is structured to provide the following subdivisions:

- Sections (groups of three-character categories), e.g., Infections of the skin and subcutaneous tissue (L00–L08)
- Categories (three-character code numbers), e.g., L02, Cutaneous abscess, furuncle and carbuncle
- Subcategories (four-character code numbers), e.g., L02.2, Cutaneous abscess, furuncle and carbuncle of trunk
- Fifth-, sixth-, or seventh-character subclassifications (five-, six-, or seven-character code numbers), e.g., L02.211, Cutaneous abscess of abdominal wall

The ICD-10-CM Tabular List contains categories, subcategories, and codes. The basic code used to classify a particular disease or injury consists of three characters and is called a category (e.g., K29, Gastritis and duodenitis). Characters for categories, subcategories, and codes may be either letters or numbers. All categories are three characters. A three-character category that has no further subdivision is equivalent to a code. Subcategories are either four or five characters. Codes may be three, four, five, six, or seven characters. That is, each level of subdivision after a category is a subcategory. The final level of subdivision is a code.

Codes that have applicable seventh characters are still referred to as codes, not subcategories. A code that has an applicable seventh character is considered invalid without the seventh character.

For example:

- K29 Gastritis and duodenitis *(category)*
  - K29.0 Acute gastritis *(subcategory)*
    - K29.00 Acute gastritis without bleeding *(code)*
- R10 Abdominal and pelvic pain *(category)*
  - R10.8 Other abdominal pain *(subcategory)*
    - R10.81 Abdominal tenderness *(subcategory)*
      - R10.811 Right upper quadrant abdominal tenderness *(code)*