CENGAGE

MICHELLE A. GREEN, MPS, RHIA, FAHIMA, CPC

3-2-1
CODE IT!

SEVENTH EDITION

AAPC
CEU APPROVED

3-2-1 CODE IT!

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SEVENTH EDITION

CENGAGE

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3-2-1 Code It! **Seventh Edition**
Michelle A. Green

Notice to the Reader

LIST OF TABLES

Introduction

Accurate coding is crucial to the successful operation of any health care facility or provider's office because reported codes determine the amount of reimbursement received. The annual (and sometimes more frequent) revision of coding guidelines and payer requirements serve to challenge coders. Those responsible for assigning and reporting codes in any health care setting require thorough instruction in the use of the ICD-10-CM, ICD-10-PCS, CPT, and HCPCS level II coding systems. Students who are completing formal coursework as part of an academic program and experienced coders who are already employed in the health care field will find that *3-2-1 Code It!* provides the required information in a clear and comprehensive manner.

Due to the comprehensive nature of the *3-2-1 Code It!* textbook, instructors may choose to cover its content in more than one course.

- Chapters 1 through 6 could be taught in an ICD-10-CM and ICD-10-PCS coding course.
- Chapters 7 through 18 could be taught in a CPT and HCPCS level II coding course.
- Chapter 19 could be included as required reading in an insurance and reimbursement course, either as an introductory or summary chapter.

Instructors for medical assistant (MA) and medical office administration (MOA) programs may choose to cover the following chapters only in their coding course(s):

- Chapters 2 through 4, and 7 in an ICD-10-CM, and HCPCS level II coding course (ICD-10-PCS is not used for outpatient or physician office coding.)
- Chapters 8 through 9, selected sections of 11 through 15, and 16 through 18 in a CPT coding course

NOTE:

Your academic program's community of interest (e.g., employers of graduates) will determine which sections of Chapters 11 through 15 (CPT Surgery) should be covered in your CPT coding course. Likewise, if your graduates obtain employment assigning and submitting CPT Anesthesia codes, your course should include Chapter 10. If your graduates do not assign radiology or pathology/laboratory codes during their employment, Chapters 16 and 17 can be excluded from your CPT coding course.

Instructors can refer to the Instructor's Manual for sample course syllabi that organize textbook content into one or two courses. For example, the syllabus for a one-semester course includes content from *3-2-1 Code It!* appropriate for an introductory course.

The *3-2-1 Code It!* text requires users to have access to paper-based coding manuals (ICD-10-CM, ICD-10-PCS, HCPCS level II, and CPT) because they are used as references when coding rules are explained and for completing exercises and reviews in each chapter.

NOTE:

Dental codes (D codes) are copyrighted by the American Dental Association. Purchase of a separate Current Dental Terminology (CDT) coding manual is required to assign dental codes.

The intended use of *3-2-1 Code It!* is for:

- Academic programs in coding and reimbursement, health information management, medical assisting, medical office administration, and so on

- In-service education programs in health care facilities (e.g., physicians' offices, hospitals, nursing facilities, home health agencies, hospices), health insurance companies, quality improvement organizations, and so on
- Individuals who want to use it for self-instruction to learn how to code or to update their coding skills
- Health care professionals who need a comprehensive coding reference to assist them in accurately assigning codes

It is recommended that students complete the following course work before they begin and/or during the same time they are learning concepts presented in *3-2-1 Code It!*:

- Essentials of health information management
- Medical terminology
- Anatomy and physiology
- Essentials of pharmacology
- Human diseases/pathophysiology

Organization of This Textbook

This textbook is organized into 19 chapters and one appendix.

NOTE:

Content about long-term care, home health care, and hospice coding is located at the textbook's Student Companion Site at http://login.cengage.com.

- Chapter 1 includes an overview of coding systems used to report inpatient and outpatient diagnoses and procedures and services to health plans. It also focuses on coding career opportunities in health care, the importance of joining professional organizations and obtaining coding credentials, the impact of networking with other coding professionals, and the development of opportunities for career advancement. Computer-assisted coding (CAC) is also covered.

    The corresponding workbook chapter contains high level Bloom's taxonomy assignments about validating ICD-10-CM/PCS codes, computer-assisted coding, face validity of data management reports, physician query process, determining medical necessity, and SNOMED CT.

- Chapters 2 and 3 cover general ICD-10-CM/PCS coding concepts and provide coding practice. Chapter 3 covers ICD-10-CM official coding guidelines.

- Chapter 5 is specific to inpatient coding concepts (and not typically covered by academic programs that focus on outpatient and physician coding), and Chapter 6 is specific to outpatient coding concepts. Inpatient coding concepts apply to acute care hospitals, and the chapters include ICD-10-CM and ICD-10-PCS official coding guidelines. Outpatient coding concepts covered include the physicians' office, and hospital emergency and outpatient departments. ICD-10-CM/PCS chapters are sequenced before HCPCS level II and CPT chapters in this textbook because diagnosis codes are reported to justify the medical necessity of procedures and/or services provided.

- Chapter 7 covers the HCPCS level II national coding system, which was developed by the Centers for Medicare & Medicaid Services.

- Chapters 8 through 18 cover CPT coding concepts. Each CPT section has its own chapter, except for the Surgery section, which requires five separate chapters.

- Chapter 19 contains a detailed discussion of insurance and reimbursement concepts. (For comprehensive coverage of third-party payers and reimbursement methodologies, refer to Cengage's *Understanding Health Insurance: A Guide to Billing and Reimbursement*, by Michelle A. Green.)
- Appendix I contains the E/M CodeBuilder, which can also be downloaded from the Student Companion Site at **http://login.cengage.com** and printed for use with Chapter 9 cases to select evaluation and management (E/M) service codes.

Features of the Textbook

Each textbook chapter contains the following elements:

- List of topics
- Key terms
- Chapter objectives
- Introduction
- Exercises
- Internet links
- Summary
- Study checklist
- Review

Textbook features include:

- Key terms and learning objectives located at the beginning of each chapter to help organize the material
- Boldfaced terms throughout each chapter to assist students in learning the technical vocabulary associated with coding systems
- Coding tips and notes that highlight important concepts presented in each chapter
- Exercises after each chapter section that reinforce content presented
- Multiple choice and coding practice reviews that allow for mastery of coding concepts

New to This Edition

- The textbook and its ancillaries have been updated to include the latest ICD-10-CM, ICD-10-PCS, CPT, and HCPCS level II code sets, conventions, and guidelines.
- Textbook and workbook coding assignments, examples, exercises, and reviews have been updated to include the most recent ICD-10-CM, ICD-10-PCS, CPT, and HCPCS level II codes.
- Answer keys have been updated in the *Instructor's Manual to Accompany 3-2-1 Code It!*, which is located at the Instructor Companion Site (**http://login.cengage.com**).
- Chapter 1 includes updated content about professional associations, professional credentials, and computer-assisted coding (CAC). Exercises about Documentation as a Basis for Coding: Determining Medical Necessity and Other Classifications, Databases, and Nomenclatures: SNOMED CT were created for the corresponding chapter in the workbook.
- Chapter 2 was revised to update ICD-10-CM and ICD-10-PCS content. Content about encoders and computer-assisted coding (CAC) was revised and expanded. Content about ICD-9-CM as a legacy classification system content was also updated.
- Chapter 3 includes updated content about coding conventions in ICD-10-CM and ICD-10-PCS, and examples allow educators and students to compare the use of conventions in the classification systems. Examples, exercises, and the chapter review have also been updated.

- Chapter 4 includes updated content about the ICD-10-CM *Official Guidelines for Coding and Reporting*. Exercises and the chapter review have also been updated. New examples have been added throughout content about ICD-10-CM chapter coding guidelines.

- Chapter 5 includes updated content about inpatient ICD-10-CM diagnosis coding guidelines and inpatient ICD-10-PCS procedure coding guidelines. Examples, exercises, and the chapter review were also updated.

- Chapter 6 contains updated content about outpatient ICD-10-CM diagnosis coding guidelines. Examples, exercises, and the chapter review have also been updated.

- Chapter 7 contains updated content about HCPCS level II coding. Examples, exercises, and the chapter review have also been updated.

- Chapter 8 contains updated introductory content about CPT coding. Examples, exercises, and the chapter review have also been updated.

- Chapter 9 contains updated content about CPT's evaluation and management (E/M) section. Examples, exercises, and the chapter review have also been updated.

- Chapter 10 contains updated content about CPT's Anesthesia section. Examples, exercises, and the chapter review have also been updated.

- Chapters 11 through 15 contain updated content about CPT's Surgery section. Examples, exercises, and the chapter review have also been updated.

- Chapter 16 contains updated content about CPT's Radiology section. Examples, exercises, and the chapter review have also been updated.

- Chapter 17 contains updated content about CPT's Pathology and Laboratory section. Examples, exercises, and the chapter review have also been updated.

- Chapter 18 contains updated content about CPT's Medicine section. Examples, exercises, and the chapter review have also been updated.

- Chapter 19 contains updated content about insurance and reimbursement. Examples, exercises, and the chapter review have also been updated.

- Appendix I contains an E/M CodeBuilder (also available on the Student Companion Site), which can be used with Chapter 9 to assign evaluation and management codes.

Supplements

The following supplements accompany this text:

- Instructor Companion Site
- Student Workbook

- Student Companion Site at http://login.cengage.com
- MindTap at http://login.cengage.com

Instructor Companion Site

Spend less time planning and more time teaching with Cengage's Instructor Companion Site to Accompany the Seventh Edition of *3-2-1 Code It!* As an instructor, you will have access to all of your resources online, anywhere and at any time. All instructor resources can be accessed by going to http://login.cengage.com to create a unique user login. Contact your sales representative for more information. Online instructor resources at the Instructor Companion Site are password-protected and include the following:

- The Instructor's Manual consists of seven sections:
  - Section I—Instructor's Resources
  - Section II—Answer Keys to Textbook Chapter Exercises and Reviews

○ Section III—Answer Keys to Workbook Assignments and Reviews

○ Section IV—Answer Keys to Coding Patient Records (Workbook Appendices A–D)

○ Section V—Answer Key to Mock Certified Professional Coder (CPC) Certification Examination (Workbook Appendix E)

○ Section VI—Answer Key to Mock Certified Coding Specialist—Physician (CCS-P) Certification Examination (Workbook Appendix F)

○ Section VII—Answer Key to Mock Certified Coding Specialist (CCS) Certification Examination (Workbook Appendix G)

- *Cengage Learning Testing Powered by Cognero*, a flexible, online system that allows you to author, edit, and manage test bank content from multiple Cengage Learning solutions; you can also create multiple test versions in an instant, and deliver tests from your learning management system (LMS), classroom, or elsewhere.

- Customizable instructor support slide presentations in PowerPoint® format focus on the most important points for each chapter.

- *Insurance Billing & Coding Curriculum Guide* helps you plan your course using *3-2-1 Code It!* and other coding resources, and also maps content to certification exams.

- Conversion grids, map the seventh edition to the sixth edition and to competing texts to make adapting your course to *3-2-1 Code It!* a snap.

- Access to all free student supplements, including additional textbook content.

Student Workbook

(ISBN: 978-1-337-90281-6)

The workbook follows the chapter organization of the text and contains higher-level Bloom's taxonomy assignments (that comply with academic program accreditation organization requirements, such as CAHIIM competencies), including numerous diagnosis/procedure statements and case studies so that students can practice coding. Each assignment contains a list of objectives, an overview of content relating to the assignment, and instructions for completing the assignment. The last assignment in each workbook chapter contains review questions in multiple-choice format to emulate credentialing exam questions. The workbook also contains actual patient records and mock CPC, CCS-P, and CCS certification examinations.

Student Companion Site

Additional textbook resources for students and instructors can be found online at http://login.cengage.com.

All resources located on the Student Companion Site to accompany *3-2-1 Code It!* are free to textbook users. Student resources include:

- Revisions to textbook and workbook due to coding changes as they become available

- E/M Codebuilder (also found in Appendix I of the textbook)

- Tutorials for how to code patient records (to assist in coding patient records found in Appendices A-D of the workbook)

- Extra content about related coding topics, including long-term care, home health care, and hospice coding

MindTap

(ISBNs: 2-Year Instant Access Code: 9781337902861

2-Year Printed Access Code: 9781337902878

4-Year Instant Access Code: 9781337902885

4-Year Printed Access Code: 9781337902892)

Green's *3-2-1 Code It!* Seventh Edition on MindTap is the first of its kind in an entirely new category: the Personal Learning Experience (PLE). This personalized program of digital products and services uses interactivity and customization to engage students, while offering instructors a wide range of choice in content, platforms, devices, and learning tools. MindTap is device agnostic, meaning that it will work with any platform or learning management system and will be accessible anytime, anywhere: on desktops, laptops, tablets, mobile phones, and other Internet-enabled devices.

> **NOTE:**
>
> The numbering of textbook review case studies matches MindTap™ numbering.

This MindTap includes:

- An interactive eBook with highlighting, note-taking (integrated with Evernote), and more
- Flashcards for practicing chapter terms
- Computer-graded activities and exercises
  - Self-check and application activities, integrated with the eBook
  - Case studies with videos
- Easy submission tools for instructor-graded exercises
- Medical Coding Trainer software for a real-world interactive coding experience
- Computer-assisted coding (CAC) cases

Optum360™ EncoderPro.com

Go to www.EncoderPro.com to register for a 30-day free trial of *EncoderPro.com Expert*, which automates the ICD-10-CM, ICD-10-PCS, CPT, and HCPCS level II coding manuals. (ICD-10-CM and ICD-10-PCS crosswalks for ICD-9-CM codes are also included.)

Students should not register for the 30-day free trial until instructed to do so by faculty. Students should use paper-based coding manuals to learn how to assign codes. Then, www.EncoderPro.com software can be used to assign codes for exercises as assigned by the instructor.

A Note About CPT Coding Manual Editions

Every attempt is made to make the material within this textbook and its ancillary products (e.g., Workbook, Instructor's Manual) as current as possible by updating to CPT 2019 just prior to publication.

Michelle A. Green, MPS, RHIA, FAHIMA, CPC, has been a college professor since 1984. She taught traditional classroom-based courses until 2000 at Alfred State College, when she transitioned all of the health information management and coding courses to an Internet-based format. In 2016, she began teaching for the health information management program at Mount Wachusett Community College, Gardner, Massachusetts. In 2017, she also began teaching for the health information technology program at Mohawk Valley Community College, Utica, New York. Prior to 1984, she worked as a director of health information management at two acute care hospitals in Florida's Tampa Bay area. Both positions required her to assign codes to inpatient cases. Upon becoming employed as a college professor, she routinely spent the semester breaks coding for a number of health care facilities so that she could further develop her inpatient and outpatient coding skills.

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In memory of my son, Eric, who always kept me "on task" by asking, "How much did you get finished in the chapter today, Mom?" Thank you for truly understanding my need to pursue my passion for teaching and writing. You always proudly introduced me as your mom, the teacher and writer. You remain forever in my heart, Eric. A special thank you to my brother, Dave Bartholomew, for his encouragement and help. You are my rock!

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Special appreciation is expressed to Optum360 Publishing Group for granting permission to reprint selected images, tables, and pages from:

- *Coder's Desk Reference for Diagnoses*
- *Coders Desk Reference for Procedures*
- *Coding & Payment Guide for Anesthesia Services*
- EncoderPro.com
- *HCPCS Level II Professional*
- *ICD-10-CM Professional*
- *ICD-10-PCS Professional*

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Feedback

Contact the author at michelle.ann.green@gmail.com with questions, suggestions, or comments about the text or its supplements. Please realize that the publisher (www.cengage.com) authorizes the release of the Instructor's Manual (with coding answers) to educators only. The publisher also posts an AAPC CEU exam on the Student Companion Site.

Chapter Outline and Key Terms

The **Chapter Outline** organizes the chapter material at a glance. The **Key Terms** list represents new vocabulary in each chapter. Each term is highlighted in color in the chapter, where it is also defined and used in context. A complete definition of each term appears in the Glossary at the end of the textbook.

Objectives

The **Objectives** list the outcomes expected of the learner after a careful study of the chapter. Read the objectives before reading the chapter content. When you complete the chapter, read the objectives again to see if you can say for each one, "Yes, I know that." If you cannot say this about an objective, go back to the appropriate content and reread. These outcomes are critical to a successful career as an insurance specialist.

Chapter Outline

- Overview of ICD-10-CM and ICD-10-PCS
- ICD-10-CM Tabular List of Diseases and Injuries
- ICD-10-CM Index to Diseases and Injuries
- ICD-10-PCS Index and Tables
- Official ICD-10-CM and ICD-10-PCS Guidelines for Coding and Reporting
- ICD-9-CM Legacy Coding System

Chapter Objectives

At the conclusion of this chapter, the student should be able to:

1. Define key terms related to the introduction of ICD-10-CM and ICD-10-PCS coding.
2. Explain the purpose of assigning ICD-10-CM and ICD-10-PCS codes.
3. Locate main terms for diagnostic statements using the ICD-10-CM Index to Diseases and Injuries.
4. Assign diagnosis codes using the ICD-10-CM Index to Diseases and Injuries and the ICD-10-CM Tabular List of Diseases and Injuries.
5. Assign procedure codes using the ICD-10-PCS Index and Tables.
6. Explain the importance of applying ICD-10-CM and ICD-10-PCS guidelines for coding and reporting.
7. Use general equivalence mappings (GEMs) as part of the ICD-9-CM legacy coding system.

Key Terms

- category
- cooperating parties for the ICD-10-CM/PCS
- ICD-10 Coordination and Maintenance Committee
- Index to Diseases and Injuries
- Medicare Prescription Drug, Improvement, and Modernization Act (MMA)
- morbidity
- Official ICD-10-PCS Guidelines for Coding and Reporting
- placeholder

Introduction

There are two related classifications of diseases with similar titles. The **International Classification of Diseases (ICD)** is published by the World Health Organization (WHO) and is used to classify **mortality** (death) data from death certificates. WHO published the tenth revision of ICD in 1994 with a new name, *International Statistical Classification of Diseases and Related Health Problems*, and reorganized its 3-digit categories. (Although the name of the publication was changed, the familiar abbreviation ICD was kept.)

The *International Classification of Diseases, Tenth Revision, Clinical Modification* (ICD-10-CM) was developed in the United States and is used to code and classify **morbidity** (disease) data from inpatient and outpatient records, including physician office records. ICD-10-CM is a closed classification system that is used in the United States to classify diagnoses, which means that ICD-10-CM provides just one place to classify each condition.

All health care settings use ICD-10-CM to report diagnoses. The *International Classification of Diseases, Tenth Revision, Procedure Classification System* (ICD-10-PCS) is used to code and classify procedure data from hospital inpatient records only. (ICD-10-CM and ICD-10-PCS are abbreviated as ICD-10-CM/PCS.)

NOTE:

Provider offices and health care facilities (e.g., hospitals) use ICD-10-CM to code diagnoses. Hospitals use ICD-10-PCS to code inpatient procedures. (Provider offices and outpatient health care settings use CPT and HCPCS level II to code procedures and services.) ICD-10-CM and ICD-10-PCS are abbreviated as ICD-10-CM/PCS.

Introduction

The **Introduction** provides a brief overview about major topics covered in the chapter. The introduction (and the objectives) provides a framework for your study of the content.

Notes

Notes appear throughout the text and serve to bring important points to your attention. The notes clarify content, refer you to reference material, provide more background for selected topics, or emphasize exceptions to rules.

HIPAA Alerts

The **HIPAA Alert** feature highlights issues related to the privacy and security of personal health information.

⚠ HIPAA Alert!

The HIPAA regulations for electronic transactions require providers and third-party payers, including Medicare administrative contractors (MACs), to adhere to the *Official Guidelines for Coding and Reporting*. Thus, a violation of the coding guidelines is technically a HIPAA violation. Because some third-party payers and MACs do not appear to be aware of (or understand) this HIPAA provision, to obtain appropriate reimbursement for submitted ICD-10-CM (and ICD-10-PCS) codes, you may need to point out specific provisions in the regulation that reference the coding guidelines. For example, the Z51 (Encounter for other aftercare and medical care) codes in ICD-10-CM can be reported as a first-listed code for outpatient care. If third-party payers and MACs deny claims that report Z51 codes contact the regional CMS office or HIPAA enforcement office (located at CMS) for resolution.

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Coding Tips

The **Coding Tips** feature provides recommendations and hints for selecting codes and for the correct use of the coding manuals.

⚠️ **Coding Tip**

Make sure you read CPT code descriptions carefully. When the code description states "with or without" another procedure, that other procedure is not reported separately if it is performed (e.g., 57240, anterior colporrhaphy, repair of cystocele with or without repair of urethrocele, including cystourethroscopy, when performed).

Examples

Examples appear throughout the text to promote understanding of presented concepts.

➤ **EXAMPLE 1:** ICD-10-CM TABULAR LIST OF DISEASES AND INJURIES—INCLUSION TERMS: The following inclusion terms are located in the Tabular List of Diseases and Injuries for diagnosis code M54.5, Low back pain:
- Loin pain
- Lumbago NOS

Exercise 2.2 – ICD-10-CM Tabular List of Diseases and Injuries

Instructions: Complete each statement.

1. The ICD-10-CM _____ of Diseases and Injuries arranges codes and descriptions in alphanumerical order, and it contains 21 chapters that classify diseases and injuries.
2. The last chapter of ICD-10-CM tabular list codes that are reported for patient encounters when a circumstance other than disease or injury is documented (located in Table 2-1) are called Factors Influencing Health Status and Contact with Health Services or _____ codes.
3. I10 is an example of a _____ code, which has no further subdivisions.
4. Subcategory codes that require additional characters are _____ if the 4th, 5th, 6th, and/or 7th character(s) are absent.
5. The 5th and 6th characters of "x" in code O40.1xx0 are called _____.

Exercises

Exercises reinforce chapter content.

Summary

The **Summary** at the end of each chapter recaps the key points of the chapter. The summary also serves as a review aid when preparing for tests.

Summary

The *International Classification of Diseases, 10th Revision,* *International Classification of Diseases, 10th Revision, Clinical Modification* ICD-10-CM/PCS, replaced ICD-9-CM effective October 2015. ICD-10-CM is Health Organization's *International Classification of Diseases, Ninth Revision* many more codes and applies to more users than ICD-9-CM because it is de type of health care encounter (e.g., inpatient, outpatient, hospice, home health ICD-10-CM Tabular List of Diseases and Injuries contains 21 chapters. It is a within chapters based on body system or condition, and codes are then orga categories, subcategories, and codes. ICD-10-CM disease and injury codes most are followed by a decimal point and between one and four additional ch

Internet Links

ICD-10-CM/PCS updates: Go to *www.cms.gov*, click on the Medicare link, click on the IC Coding, and scroll down to click on this year's ICD-10-CM or ICD-10-PCS link.

JustCoding News free e-newsletter: Go to *www.justcoding.com*, and click on the eNew at the top of the page.

Internet Links

Internet Links are provided to encourage you to expand your knowledge at various state and federal government agency, commercial, and organization sites.

Study Checklist

- ☐ Read this chapter and highlight key concepts.
- ☐ Create an index card for each key term.
- ☐ Access the chapter Internet links to learn more about concepts.
- ☐ Complete the chapter exercises and review, verifying answers with your instructor.
- ☐ Complete Workbook chapter, verifying answers with your instructor.
- ☐ Go to *http://login.cengage.com* to access the Student Companion Web Site. Login located in the Preface.
- ☐ Form a study group with classmates to discuss chapter concepts in preparation for an

Study Checklist

The **Study Checklist** appears toward the end of each chapter and directs you to other learning and application aids. Completing each of the items in the checklist will help you to gain confidence in your understanding of the key concepts and in your ability to apply them correctly.

Review

Matching – ICD-10-CM

Instructions: Match the format in Column 2 with each line of the ICD-10-CM Index to Disea entries in Column 1.

Review

Each chapter **Review** includes multiple-choice questions and coding practice cases that will test your understanding of chapter content and critical thinking ability.

NOTES

Coding Overview

Overview of Coding

Chapter Outline

Career as a Coder

Professional Associations

Coding Systems and Processes

Other Classification Systems and Databases

Documentation as Basis for Coding

Health Data Collection

Chapter Objectives

At the conclusion of this chapter, the student should be able to:

1. Define key terms related to the overview of coding.
2. Summarize the training, job responsibilities, and career path for a coder.
3. Differentiate among types of professional associations for coders, health insurance specialists, and medical assistants.
4. Summarize coding systems and processes.
5. Identify other classification systems and databases.
6. Identify how documentation serves as the basis for assigning codes.
7. Describe health data collection for the purpose of reporting hospital and physician office data.

Key Terms

application service provider (ASP)

Assessment (A)

assumption coding

automated case abstracting software

automated record

Centers for Medicare & Medicaid Services (CMS)

claims examiner

classification system

clearinghouse

CMS-1450

CMS-1500

code

coder

coding

coding system

computer-assisted coding (CAC)

concurrent coding

continuity of care

Current Procedural Terminology (CPT)

database

demographic data

Diagnostic and Statistical Manual of Mental Disorders (DSM)

diagnostic/management plan

discharge note

documentation

document imaging

downcoding

electronic health record (EHR)

electronic medical record (EMR)

encoding

evidence-based coding

evidence-verification coding

HCPCS level II

HCPCS national codes

health care clearinghouse

Healthcare Common Procedure Coding System (HCPCS)

health care provider

health data collection

Health Insurance Portability and Accountability Act of 1996 (HIPAA)

health insurance specialist

health plan

hospitalist

hybrid record

indexed

initial plan

integrated record

International Classification of Diseases for Oncology, Third Edition (ICD-O-3)

International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)

International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM)

International Classification of Diseases, Tenth Revision, Clinical Modification/Procedure Coding System (ICD-10-CM/PCS)

International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS)

International Classification of Functioning, Disability and Health (ICF)

internship

internship supervisor

jamming

listserv

Logical Observation Identifiers Names and Codes (LOINC)

manual record

medical assistant

medical coding process

medical management software

medical necessity

medical nomenclature

medical record

National Drug Codes (NDC)

Objective (O)

online discussion board

overcoding

patient education plan

patient record

physician query process

Plan (P)

problem list

problem-oriented record (POR)

progress notes

provider

resident physician

RxNorm

scanner

sectionalized record

source-oriented record (SOR)

specialty coders

Subjective (S)

Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT)

teaching hospital

teaching physician

therapeutic plan

third-party administrator (TPA)

third-party payer

transfer note

UB-04

unbundling

Unified Medical Language System (UMLS)

upcoding

Introduction

This chapter focuses on coding career opportunities in health care, the importance of joining professional associations and obtaining coding credentials, the impact of networking with other coding professionals, and the development of opportunities for career advancement. It also provides a coding overview that explains clinical documentation improvement, the physician query process, and the use of computer-assisted coding (CAC) and encoder software. Documentation as a basis for coding includes patient record formats and the importance of establishing medical necessity. Health data collection covers the reporting of hospital and physician office data using abstracting software, medical practice management software, and CMS-1500 and UB-04 claims.

NOTE:

This chapter does *not* require the use of ICD-10-CM, ICD-10-PCS, CPT, or HCPCS level II coding manuals. However, later chapters in this textbook do require them (because learning how to code is easier when you use paper-based coding manuals). Students should also learn how to use encoder and computer-assisted coding (CAC) software.

> **NOTE:**
>
> The following additional content is located on the Student Companion Site at http://login.cengage.com:
> - *Documentation Requirements for Teaching Physicians 2012*
> - History of Medical Classification and Coding Systems
> - Alternate Health Care Coding Systems

Career as a Coder

A **coder** acquires a working knowledge of coding systems (e.g., CPT, HCPCS level II, ICD-10-CM, ICD-10-PCS), coding conventions and guidelines, government regulations, and third-party payer requirements to ensure that all diagnoses (conditions), services (e.g., office visits), and procedures (e.g., surgery, x-rays) documented in patient records are coded accurately for reimbursement, research, and statistical purposes. Excellent interpersonal skills are required of coders because they communicate with providers about documentation and compliance issues related to the appropriate assignment of diagnosis and procedure/service codes.

> **NOTE:**
>
> Although graduates of medical assistant and medical office administration programs typically do not become employed as full-time coders, they often are responsible for the coding function in a physician's office or medical clinic. This chapter provides the following resources for students pursuing any health-related academic program that includes coding as a job function:
> - Professional associations that offer coding and other certification exams
> - Internet-based discussion boards that cover coding and other topics
> - Impact of HIPAA federal legislation on coding and reimbursement
> - Coding references and other resources that facilitate accurate coding
> - Physician query process as a way to prevent assumption coding
> - Manual and automated patient record formats and health data collection

Training

Training methods for those interested in pursuing a coding career include college-based programs that contain coursework in medical terminology, anatomy and physiology, health information management, pathophysiology, pharmacology, ICD-10-CM, ICD-10-PCS, HCPCS level II, and CPT coding, and reimbursement methodologies. Many college programs also require students to complete a nonpaid internship (e.g., 120 hours) at a health care facility. Professional associations (e.g., the American Health Information Management Association) offer noncredit-based coding training, usually as distance learning (e.g., Internet-based), and some health care facilities develop internal programs to retrain health professionals (e.g., nurses) who are interested in a career change.

> **NOTE:**
>
> Pharmacology plays a significant role in accurate and complete coding. Coders review the medication administration record (MAR) to locate medications administered that impact diagnosis coding. For example, upon review of the MAR the coder notices that the patient received a course of Librium (chlordiazepoxide) during inpatient hospitalization. Librium is classified as an antianxiety medication, but it can be also used to counteract alcohol withdrawal symptoms. If the latter is the reason that the patient received the Librium (based on physician documentation), the coder can assign an appropriate alcohol dependence diagnosis code as well as alcohol detoxification procedure codes.

Coding Internship

The coding **internship** benefits the student and the facility that accepts the student for placement. Students receive on-the-job experience prior to graduation, and the internship assists them in obtaining permanent employment. Facilities benefit from the opportunity to participate in and improve the formal education process. Quite often, students who complete professional practice experiences (or internships) are later employed by the facility at which they completed the internship.

The **internship supervisor** is the person to whom the student reports at the site. Students are often required to submit a professional résumé to the internship supervisor and to schedule an interview prior to being accepted for placement. While this experience can be intimidating, it is excellent practice for the interview process that the student will undergo prior to obtaining permanent employment. Students should research the résumé writing and interview technique services available from the college's career services office. This office will review résumés and will provide interview tips. (Some even videotape mock interviews for students.)

> **NOTE:**
>
> Breach of patient confidentiality can result in termination from the internship site, failure of the internship course, and even possible suspension and/or expulsion from your academic program. Make sure you check out your academic program's requirements regarding this issue.

The internship is on-the-job training even though it is nonpaid, and students should expect to provide proof of immunizations (available from a physician) and possibly undergo a preemployment physical examination and participate in facility-wide and department-specific orientations. In addition, because of the focus on privacy and security of patient information, the facility will likely require students to sign a nondisclosure agreement (to protect patient confidentiality), which is kept on file at the college and by the professional practice site.

During the internship, students are expected to report to work on time. Students who cannot attend the internship on a particular day (or who arrive late) should contact their internship supervisor and program faculty. Students are also required to make up any lost time. Because the internship is a simulated job experience, students are to be well groomed and should dress professionally. Students should show interest in all aspects of the experience, develop good working relationships with coworkers, and react appropriately to criticism and direction. If any concerns arise during the internship, students should discuss them with their internship supervisor and/or program faculty.

Credentials

The American Health Information Management Association (AHIMA) and the AAPC (previously called the American Academy of Professional Coders) offer certification in coding. Credentials available from AHIMA include the following:

- Certified Coding Associate (CCA)
- Certified Coding Specialist (CCS)
- Certified Coding Specialist—Physician-based (CCS-P)

The AAPC offers the following core coding certification exams:

- Certified Professional Coder (CPC)
- Certified Inpatient Coder (CIC)
- Certified Outpatient Coder (COC)
- Certified Risk Adjustment Coder (CRC)

The AAPC also offers specialty certifications in response to a demand for **specialty coders** who have obtained advanced training in medical specialties and who are skilled in compliance and reimbursement areas, such as the Certified Ambulatory Surgical Center Coder (CASCC) credential.

The American Medical Billing Association (AMBA) offers the Certified Medical Reimbursement Specialist (CMRS) exam, which recognizes the competency of members who have met high standards of proficiency. According to AMBA, Certified Medical Reimbursement Specialists (CMRS) are skilled in facilitating the claims reimbursement process from the time a service is rendered by a health care provider until the balance is paid. The CMRS is knowledgeable in ICD, CPT, and HCPCS level II coding; medical terminology; insurance claims and billing; appeals and denials; fraud and abuse; Health Insurance Portability and Accountability Act (HIPAA) regulations; Office of Inspector General (OIG) compliance; information and Internet technology; and reimbursement methodologies.

The type of setting in which you seek employment will indicate which credential(s) you should pursue. Inpatient and/or outpatient coders obtain CCS and/or CIC certification, and physician office coders choose the CCS-P and/or CPC credential. Outpatient coders also have the option of selecting the COC credential. Insurance specialists who work for health care facilities and third-party payers obtain the CCS-P. Those who have not met requirements for field experience as a coder can seek apprentice-level certification as a CCA. (Once certified, professional associations require maintenance of the credential through continuing education [CE] recertification per two-year cycle.)

Employment Opportunities

Coders can obtain employment in a variety of settings, including clinics, consulting firms, government agencies, hospitals, insurance companies, nursing facilities, home health agencies, hospice organizations, and physicians' offices. Coders also have the opportunity to work at home for employers who partner with an Internet-based **application service provider (ASP)**, which is a third-party entity that manages and distributes software-based services and solutions to customers across a *wide area network (WAN)* (computers that are far apart and are connected via the Internet) from a central data center.

Other Professions Related to Coding

One profession that is closely related to a coder is that of a **health insurance specialist** (or **claims examiner**). When employed by third-party payers, these specialists review health-related claims to determine whether the costs are reasonable and medically necessary based on the patient's diagnosis. This process involves verification of the claim against third-party payer guidelines to authorize appropriate payment or to refer the claim to an investigator for a more thorough review.

Another profession that is closely related to a coder is the **medical assistant**. When employed by a provider, this person performs administrative and clinical tasks to keep the office and clinic running smoothly. Medical assistants who specialize in administrative aspects of the profession answer telephones, greet patients, update and file patient medical records, complete insurance claims, process correspondence, schedule appointments, arrange for hospital admission and laboratory services, and manage billing and bookkeeping.

When employed by a physician's office, health insurance specialists and medical assistants perform medical billing, coding, record keeping, and other medical office administrative duties. Health insurance specialists (or claims examiners) and medical assistants receive formal training in college-based programs or at vocational schools. They also receive on-the-job training.

- Health insurance specialists (or claims examiners) often become certified as a Certified Professional Biller (CPB) (through the AAPC).
- The health insurance specialist also has the option of becoming credentialed by the Medical Association of Billers (MAB) as a Certified Medical Billing Specialist (CMBS).
- Medical assistants often become credentialed as a Certified Medical Assistant (CMA) through the American Association of Medical Assistants (AAMA) or as a Registered Medical Assistant (RMA) through the American Medical Technologists (AMT).

Health insurance specialists (or claims examiners) and medical assistants obtain employment in clinics, health care clearinghouses, health care facility billing departments, insurance companies, and physicians' offices and

with third-party administrators (TPAs). When employed by clearinghouses, insurance companies, or TPAs, they often have the opportunity to work at home, where they process and verify health care claims using an Internet-based application service provider (ASP).

Exercise 1.1 – Career as a Coder

Instructions: Match the description with its career. Answers may be assigned more than once.

_____ 1. Answers telephones, greets patients, and updates and files patient medical records

_____ 2. Communicates with providers about documentation and compliance issues related to code assignment

_____ 3. Reviews claims for third-party payers to determine whether costs are reasonable and medically necessary

_____ 4. Schedules hospital admission and laboratory services

_____ 5. Verifies claims against third-party payer guidelines to authorize appropriate payments

a. Coder
b. Health insurance specialist
c. Medical assistant

Professional Associations

Students are often able to join a professional association (Table 1-1) for a reduced membership fee and receive most of the same benefits as active members (who pay much more!). Benefits of joining a professional association include the following:

- Eligibility for scholarships and grants
- Opportunity to network with members (internship and job placement)
- Free publications (e.g., professional journals)
- Reduced certification exam fees
- Website access for members only

Attending professional association conferences and meetings provides opportunities to network with professionals. Another way to network is to join an **online discussion board** (or **listserv**) (Table 1-2), which is an Internet-based or email discussion forum that covers a variety of topics and issues.

TABLE 1-1 Professional Associations

Career	Professional Association
Coder	AAPC (previously called the American Academy of Professional Coders) American Health Information Management Association (AHIMA)
Health Insurance Specialist	Alliance of Claims Assistance Professionals (ACAP) American Medical Billing Association (AMBA) Medical Association of Billers (MAB)
Medical Assistant	American Association of Medical Assistants (AAMA) American Medical Technologists (AMT)

TABLE 1-2 Internet-Based Discussion Boards (Listservs)

Discussion Board	Website
AHIMA Engage	AHIMA members can log in at **www.ahima.org**.
Billing-Coding forum	Go to **www.billing-coding.com**, hover over More Resources, and select Forums from the pop-up menu.
Medicare Part B	Go to **www.partbnews.com**, hover over Communities, and select Forum from the pop-up menu.

Exercise 1.2 – Professional Associations

Instructions: Match the professional association with the type of professional. Answers may be assigned more than once.

_____   **1.** AAMA   **a.** Coder

_____   **2.** AAPC   **b.** Health insurance specialist

_____   **3.** ACAP   **c.** Medical assistant

_____   **4.** AHIMA

_____   **5.** AMT

Coding Systems and Coding Processes

Coding systems and medical nomenclatures are used by health care facilities, health care providers, and third-party payers to collect, store, and process data for a variety of purposes (e.g., health care reimbursement). A **coding system** (or **classification system**) organizes a medical nomenclature according to similar conditions, diseases, procedures, and services, and it contains codes for each (e.g., ICD-10-CM arranges these elements into appropriate chapters and sections). A **medical nomenclature** includes clinical terminologies and clinical vocabularies that are used by health care providers to document patient care. *Clinical terminologies* include designations, expressions, symbols, and terms used in the field of medicine, such as "pupils equal, round, and reactive to light," commonly abbreviated as PERRL in a patient's physical examination report. *Clinical vocabularies* include clinical phrases or words along with their meanings, such as "myocardial infarction," which is defined as the sudden deprivation of blood flow to heart muscle due to coronary artery blockage resulting in tissue damage (necrosis) and commonly called a "heart attack." A **code** includes numeric and alphanumeric characters that are reported to health plans for health care reimbursement, to external agencies (e.g., state departments of health) for data collection, and internally (acute care hospital) for education and research. **Coding** is the assignment of codes to diagnoses, services, and procedures based on patient record documentation.

NOTE:

You are already familiar with a well-known coding system called the United States Postal Service ZIP Code system, which classifies addresses as numbers (e.g., 12345-9876).

Coding Systems

- The *International Classification of Diseases, Ninth Revision, Clinical Modification* **(ICD-9-CM)** was adopted in 1979 to classify diagnoses (Volumes 1 and 2) and procedures (Volume 3). The *International Classification of Diseases, Tenth Revision, Clinical Modification* **(ICD-10-CM)** (and ICD-10-PCS) replaced ICD-9-CM on October 1, 2015, to classify all diagnoses.

- The *International Classification of Diseases, Tenth Revision, Procedure Coding System* **(ICD-10-PCS)** was developed by the National Center for Health Statistics (NCHS) to classify inpatient procedures and services, and it was implemented on October 1, 2015 (replacing Volume 3 of ICD-9-CM).

NOTE:

International Classification of Diseases, Tenth Revision, Clinical Modification/Procedure Coding System **(ICD-10-CM/PCS)** is the shortened name the Centers for Medicare & Medicaid Services uses to identify both classification systems.

- The *Current Procedural Terminology* **(CPT)** was originally published by the American Medical Association (AMA) in 1966. Subsequent editions were published about every five years until the late 1980s, when the AMA began publishing annual revisions. CPT classifies procedures and services, and it is used by physicians and outpatient health care settings (e.g., the hospital ambulatory surgery department) to assign CPT codes for reporting procedures and services on health insurance claims. CPT is considered level I of the Healthcare Common Procedure Coding System (HCPCS).

- The **Healthcare Common Procedure Coding System (HCPCS)** also includes level II (national) codes, called **HCPCS level II** (or **HCPCS national codes**), which are managed by the **Centers for Medicare & Medicaid Services (CMS)**, an administrative agency in the federal Department of Health & Human Services (DHHS). HCPCS level II classifies medical equipment, injectable drugs, transportation services, and other services not classified in CPT. Physicians and ambulatory care settings use HCPCS level II to report procedures and services.

NOTE:

HCPCS level III local codes were discontinued in 2004. They had been managed by Medicare carriers and fiscal intermediaries (FIs). You might come across their legendary use in health care facility or insurance company databases. Some payers still use them.

The **Health Insurance Portability and Accountability Act of 1996 (HIPAA)** is federal legislation that amended the Internal Revenue Code of 1986 to:

- improve portability and continuity of health insurance coverage in the group and individual markets;
- combat waste, fraud, and abuse in health insurance and health care delivery;
- promote the use of medical savings accounts;
- improve access to long-term care services and coverage;
- simplify the administration of health insurance by creating unique identifiers for providers, health plans, employers, and individuals;
- create standards for electronic health information transactions; and
- create privacy and security standards for health information.

To facilitate the creation of standards for electronic health information transactions, HIPAA requires two types of code sets to be adopted for the purpose of encoding data elements (e.g., procedure and service codes). **Encoding** is the process of standardizing data by assigning alphanumeric values (codes or numbers) to text and collecting other information (e.g., gender).

Large code sets encode:

- diseases, injuries, impairments, other health-related problems, and their manifestations;
- causes of injury, disease, impairment, or other health-related problems;
- actions taken to prevent, diagnose, treat, or manage diseases, injuries, and impairments; and
- substances, equipment, supplies, or other items used to perform these actions.

> **EXAMPLE:** The diagnosis of *essential hypertension* is assigned ICD-10-CM code I10.

Small code sets encode:

- race/ethnicity;
- type of facility; and
- type of unit.

> **EXAMPLE:** A patient's gender is assigned a 1 if male, a 2 if female, or a 3 if undetermined.

HIPAA also requires specific code sets to be adopted for use by clearinghouses, health plans, and providers, as follows:

- *International Classification of Diseases, Tenth Revision, Clinical Modification* and *Procedure Coding System* (ICD-10-CM/PCS)
- *Current Procedural Terminology* (CPT)
- HCPCS level II (national codes)
- *Current Dental Terminology* (CDT)
- *National Drug Codes* (NDC)

A **clearinghouse** (or **health care clearinghouse**) is a public or private entity (e.g., billing service) that processes or facilitates the processing of health information and claims from a nonstandard to a standard format. A **health plan** (or **third-party payer**) (e.g., Blue Cross/Blue Shield, a commercial insurance company) is an insurance company that establishes a contract to reimburse health care facilities and patients for procedures and services provided. A **provider** (or **health care provider**) is a physician or another health care professional (e.g., a nurse practitioner or physician assistant) who performs procedures or provides services to patients. Adopting HIPAA's standard code sets has improved data quality and simplified claims submission for health care providers who routinely deal with multiple third-party payers. The code sets have also simplified claims processing for health plans. Health plans that do not accept standard code sets are required to modify their systems to accept all valid codes or to contract with a health care clearinghouse that does accept standard code sets.

NOTE:

A health care clearinghouse is not a **third-party administrator (TPA)**, which is an entity that processes health care claims and performs related business functions for a health plan. The TPA might contract with a health care clearinghouse to standardize data for claims processing.

Coding References

Professional organizations that are recognized as national authorities on CPT, HCPCS level II, ICD-10-CM, and ICD-10-PCS coding publish references and resources that are invaluable to coders. To ensure the

development of excellent coding skills, make sure you become familiar with and use the following references and resources:

- *AHA Coding Clinic for ICD-10-CM and ICD-10-PCS,* and *AHA Coding Clinic for HCPCS*, quarterly newsletters published by the American Hospital Association and recognized by the CMS as official coding resources
- *Conditions of Participation* (CoP) and *Conditions for Coverage* (CfC), Medicare regulations published by CMS

> **✑ NOTE:**
>
> - Official coding policy is published in the AHA *Coding Clinic for ICD-10-CM and ICD-10-PCS,* AHA *Coding Clinic for HCPCS,* and AMA *CPT Assistant*, and as National Correct Coding Initiative (NCCI) edits.
> - The AAPC and AHIMA publish coding newsletters, journals, and so on, but such publications do not contain official coding policy.

- *CPT Assistant*, monthly newsletter published by the AMA and recognized by CMS as official coding resource
- *National Correct Coding Initiative* (NCCI), code edit pairs that cannot be used in the same claim (developed by CMS and published by the federal government's National Technical Information Service [NTIS])
- Compliance program guidance documents, guidelines published by the DHHS OIG
- *ICD-10-CM Official Guidelines for Coding and Reporting*, guidelines provided by CMS and NCHS to be used as a companion document to the official version of the ICD-10-CM
- *ICD-10-PCS Official Guidelines for Coding and Reporting*, guidelines provided by CMS and NCHS to be used as a companion document to the official version of ICD-10-PCS
- *Outpatient Code Editor with Ambulatory Payment Classification* (OCE/APC), software developed by CMS, distributed by NTIS, and used by hospitals to edit outpatient claims to help identify possible CPT/HCPCS level II coding errors and assign Ambulatory Payment Classifications (APCs) that are used to generate reimbursement

Incorporating the use of the above references and resources assists coders in avoiding the following abusive and fraudulent (dishonest and illegal) coding practices, depending on intent. (Abuse involves mistakenly submitting incorrect codes, and fraud involves intentionally submitting incorrect codes to increase reimbursement.)

- **Unbundling**: Reporting multiple codes to increase reimbursement when a single combination code should be reported.
- **Upcoding**: Reporting codes that are not supported by documentation in the patient record for the purpose of increasing reimbursement.
- **Overcoding**: Reporting codes for signs and symptoms in addition to the established diagnosis code.
- **Jamming**: Routinely assigning an unspecified ICD-10-CM disease code instead of reviewing the coding manual to select the appropriate code.
- **Downcoding**: Routinely assigning lower-level CPT codes as a convenience instead of reviewing patient record documentation and the coding manual to determine the proper code to be reported.

Medical Coding Process

The **medical coding process** requires the review of patient record documentation to identify diagnoses, procedures, and services for the purpose of assigning ICD-10-CM, ICD-10-PCS, HCPCS level II, and/or CPT codes. Each health care covered entity (e.g., hospital, medical clinic, physician office) implements a unique medical coding process, which requires adherence to the following:

- Code of ethics
- Steps to accurate coding
- Coding quality
- Avoid assumption coding
- Physician query process
- Clinical Documentation Improvement Program
- Coding compliance program

Code of Ethics

Professional associations establish a *code of ethics* to help members understand how to differentiate between "right" and "wrong" and apply that understanding to decision making. The AAPC publishes a code of ethics, and AHIMA publishes standards of ethical coding; both serve as guidelines for ethical coding conduct, and they demonstrate a commitment to coding integrity.

Steps to Accurate Coding

Regardless of health care setting, the *steps to accurate coding* begin with a review of the entire patient record (manual or electronic) before selecting diagnoses, procedures, and services to which codes are assigned. Depending on the setting, coders perform retrospective coding, concurrent coding, or a combination of both.

Retrospective coding is the review of records to assign codes after the patient is discharged from the health care facility (e.g., hospital inpatient) or released from same-day outpatient care (e.g., hospital outpatient surgery unit). It is most commonly associated with inpatient hospital stays because accurate coding requires verification of diagnoses and procedures by reviewing completed face sheets, discharge summaries, operative reports, pathology reports, and progress notes in the patient records.

Concurrent coding is the review of records and/or use of encounter forms and chargemasters to assign codes during an inpatient stay (e.g., hospital) or an outpatient encounter (e.g., hospital outpatient visit for laboratory testing or x-rays, physician office visit). It is typically performed for outpatient encounters because encounter forms (e.g., physician office) and chargemasters (e.g., hospital emergency department visit, hospital outpatient visit for laboratory testing) are completed in "real time" by health care providers as part of the charge-capture process.

- *Encounter forms* are used to record data about office procedures and services provided to patients.
- *Chargemasters* contain a computer-generated list of procedures, services, and supplies and corresponding revenue codes along with charges for each.

NOTE:

Information about encounter forms and chargemasters is located in Chapter 19 of this textbook, along with samples of each.

Coding Quality

According to the American Hospital Association, "The importance of understanding and following the basic ICD-10-CM, and ICD-10-PCS coding principles cannot be overemphasized in the training of coders and in quality control activities undertaken to improve the accuracy of data reported for internal and external hospital use. The measures for coding accuracy include (a) adherence to ICD-10-CM and ICD-10-PCS coding principles and instructions, (b) attention to specificity in code selection where indicated by physician documentation in the medical record [patient record], (c) grasp of medical terminology, and (d) absence of clerical-type errors, such as those due to carelessness in reading or in transposing [letters and] numbers. Auditing of coded diagnostic and procedural information for accuracy should not be confused with the review for relevancy in sequencing of the codes at hand. They are separate tasks linked together in the data reporting process."

The statement located in (b) of the aforementioned quote is significant because it means that coders are expected to review the *entire* record when assigning codes to diagnoses and procedures documented on the face sheet and in the discharge summary. Thus, coders should review the face sheet, discharge summary, and other documentation (e.g., progress notes, operative reports, pathology reports, laboratory data) to assign the most specific codes possible.

EHR Results in Greater Implementation of Concurrent Coding

Concurrent coding was introduced for inpatient coding just after the inpatient prospective payment system (using diagnosis-related groups) was implemented on October 1, 1983. Coders from the health information department worked part of the day on nursing units, accessing paper-based manual medical records to begin the process of assigning codes to diagnoses and procedures. On discharge of the patient from the hospital, the coders performed a final review of the patient record to ensure accuracy of reported codes. Because the paper-based manual patient record can be handled by just one individual at a time, coders "competed" with nurses, physicians, and other health care providers for access to the record. As a result, concurrent coding as a process was discontinued in some facilities because it was inefficient.

Today, implementation of the electronic health record (EHR) has resulted in a resurgence of concurrent coding practices because coders (still located in the health information department) access patient records in an electronic format. They no longer "compete" with other health care providers for access to the record and,

as a result, efficiency associated with the concurrent coding concept has been realized. In practice, coders remain at their work stations in the health information department (and *remote coders* use their at-home work stations) to access patient EHRs to begin the discharge coding process. Rising health care costs created an impetus for concurrent coding processes because it is a much faster method for coders to review and verify the accuracy of codes on discharge of inpatients based on concurrent coding work performed (according to an established schedule) up until the date of discharge. For tertiary-care facilities that provide complex health care (e.g., transplant surgery) and quaternary-care facilities that provide highly specialized care (e.g., experimental medicine), both of which are also characterized as providing high-cost care (e.g., transplant surgery), having the ability to submit codes for reimbursement purposes within hours (instead of days) of inpatient discharge significantly and positively impacts their accounts receivables (and their "bottom line"). In addition, community-based hospitals also realize the benefits of concurrent coding.

Remember! Coders must avoid assumption coding, and when a problem with documentation quality is noted (e.g., conflicting diagnostic statements on the discharge summary, face sheet, and elsewhere in the record) the physician query process is initiated (discussed below).

EXAMPLE 1: The provider documented *congestive heart failure* on the face sheet of the patient record. On review of progress notes that document the patient's response to treatment, the coder finds documentation of *acute and chronic diastolic and systolic congestive heart failure* in the discharge progress note. Instead of reporting a code for *congestive heart failure*, report the more specific code for *acute and chronic diastolic and systolic congestive heart failure*.

EXAMPLE 2: The provider documented *malnutrition* on the discharge summary in the patient record. On review of progress notes, the coder finds documentation of *moderate malnutrition*. Instead of reporting the nonspecific code for *malnutrition*, report the more specific code for *moderate malnutrition*.

Avoid Assumption Coding

Coders are prohibited from performing **assumption coding**, which is the assignment of codes based on assuming, from a review of clinical evidence in the patient's record, that the patient has certain diagnoses or

received certain procedures/services even though the provider did not specifically document those diagnoses or procedures/services. According to the *Compliance Program Guidance for Third-Party Medical Billing Companies*, published by the Department of Health & Human Services' Office of the Inspector General, assumption coding creates risk for fraud and abuse because the coder assumes certain facts about a patient's condition or procedures/services, although the physician has not specifically documented the level of detail to which the coder assigns codes. (Coders can avoid fraudulent assumption coding by implementing the physician query process discussed in the following section.)

> **EXAMPLE:** An elderly patient is admitted to the hospital for treatment of a fractured femur. Upon examination, the physician documents that the skin around the fractured femur site has split open. X-ray of the left femur reveals a displaced fracture of the shaft. The patient underwent fracture reduction and full-leg casting. The physician documents *open Type I fracture of shaft, left femur* as the final diagnosis.
>
> The coder assigns code S72.302B for the *open Type I fracture of shaft, left femur*, which is correct. The coder assigns code 0QS90ZZ for the *fracture reduction and full leg casting procedure*, which is incorrect because its code description is *reposition left femoral shaft, open approach (no device), femur (shaft)*. Although the patient has an open fracture, the physician did *not* perform an open reduction procedure. (An open reduction involves making a surgical incision to align displaced bones, and it may require external fixation to heal properly.) In this case, the coder incorrectly "assumed" that an open reduction was performed because the patient's open fracture was treated. The code that should be assigned for this procedure is 0QS9XZZ because its code description is *reposition left femoral shaft, external approach*. (A closed reduction involves casting the affected limb to stabilize the fracture for healing, and it might also require the physician to pull back two ends of bone that are touching each other and/or to correct any wide angles.)

Physician Query Process

When coders have questions about documented diagnoses and procedures or services, they use a **physician query process** to contact the responsible physician to request clarification about documentation and the code(s) to be assigned. The electronic health record (EHR) allows for development of an *automated* physician query process, which is used by utilization managers (or case managers), clinical documentation improvement specialists, and coders to obtain clarification about patient record documentation. Integrating the automated physician query process with the EHR allows physicians to more easily receive and reply to queries, which results in better and timely responses from physicians.

NOTE:

The query should not lead the physician to a desired outcome.
- A leading query would be phrased as, "Is the patient's anemia due to blood loss?" and leads the physician to add due to blood loss to the anemia diagnosis for more specific code assignment and possible increased reimbursement.
- A nonleading query would be phrased as, "Can the cause of the patient's anemia be specified? The history documents symptoms of fatigue, headaches, inflamed tongue, and lightheadedness. The CBC reveals low hemoglobin levels." This query allows the physician to determine whether the anemia can be qualified according to type.

The following guidelines should be followed when activating the physician query process:
- Establish a policy to indicate when a coder should generate a physician query, such as when documentation in the patient's record fails to meet one of the following five criteria (according to AHIMA's practice brief, entitled *Managing an Effective Query Process*):
  - *Legibility* (e.g., illegible handwritten patient record entries)
  - *Completeness* (e.g., abnormal test results but clinical significance of results is not documented)

- ○ *Clarity* (e.g., signs and symptoms are present in the patient record, but a definitive diagnosis is not documented)
- ○ *Consistency* (e.g., discrepancy among two or more treating providers regarding a diagnosis, such as a patient who presents with shortness of breath and the consulting physician documents pneumonia as the cause while the attending physician documents congestive heart failure as the cause)
- ○ *Precision* (e.g., clinical documentation indicates a more specific diagnosis than is documented, such as a sputum culture that indicates bacterial pneumonia and the diagnosis does not indicate the cause of the pneumonia)
- Query the physician when the following are noted by the coder and when provider documentation in the patient record is not present (according to AHIMA's practice brief, entitled *Managing an Effective Query Process*):
  - ○ Clinical indicators of a diagnosis (e.g., lab, x-ray) but the diagnosis is not documented
  - ○ Clinical evidence for a higher degree of specificity or severity (e.g., progress notes) but specificity or severity is not documented in the diagnosis
  - ○ Cause-and-effect relationship between two conditions or an organism but the relationship is not documented in the diagnosis (e.g., due to, with)
  - ○ An underlying cause when a patient is admitted with symptoms (e.g., shortness of breath is documented instead of diagnosed pneumonia)
  - ○ Treatment is documented without a corresponding diagnosis for medical necessity (e.g., antibiotics for a secondary diagnosis of UTI, which is not documented as a diagnosis)
  - ○ Lack of present on admission (POA) indicator status (e.g., history did not indicate diagnoses that were present on admission, such as chronic asthma) (The POA indicator status is discussed in textbook Chapter 19.)

> **NOTE:**
>
> Utilization managers (or case managers) are responsible for coordinating inpatient care to ensure the appropriate utilization of resources, delivery of health care services, and timely discharge or transfer. They usually have a bachelor's degree (e.g., nursing), professional licensure (e.g., RN), and clinical practice experience.
>
> Utilization managers work closely with physicians on a daily basis, and they are a logical choice to facilitate the physician query process. In this role, they serve as the liaison for coders (and physicians) by helping coders write appropriate queries and clarifying queries for physicians so that responses are timely and complete.

- Determine whether the query will be generated concurrently (during inpatient hospitalization) or retrospectively (after patient discharge).
- Designate an individual who will serve as the physician's contact during the physician query process (e.g., coding supervisor, utilization manager). Remember that the coder's role is to assign codes based on documentation and that asking for clarification is appropriate, but making an assumption about codes to be assigned is considered fraud. That means that coders should ask physicians open-ended questions to avoid leading the physicians by indicating a preference for a particular response. Coders do not make clinical assumptions—that is the sole responsibility of the physician.

Use a physician query form (Figure 1-1A, Figure 1-1B), not scrap paper, to document the coder's query and the physician's response. If the completed query form is filed in the patient's record, determine whether it is considered an official part of the record and subject to disclosure by those requesting copies of records or whether it is an administrative form that is not subject to disclosure. The query form could also be stored in an administrative file in the coding supervisor's office and the information resulting from

the query documented kept in the patient record by the physician (e.g., an addendum to the discharge summary). The length of time that the completed query form is retained is determined by each health care organization.

> **EXAMPLE:** A patient is admitted with severe dyspnea (shortness of breath), chest pain, and fever. Upon physical examination, the physician documents rhonchi (gurgling sound in the lungs), wheezing, and rales (clicking, bubbling, or rattling sounds in the lungs). Laboratory data during the hospitalization include a culture and sensitivity report of sputum that documents the presence of gram-negative bacteria. A review of the physician orders reveals documentation of appropriate medications to treat *pneumonia due to gram-negative bacteria*. The medication administration record (MAR) documents administration of the medications, and the physician progress notes document the patient's positive response to medications (and resolution of the pneumonia). The physician documents *viral pneumonia* as the final diagnosis.

Depending on the health care facility's coding policy and procedure, the coder has two options.

1. If the coding policy and procedure allow coders to use the entire patient record as the basis of assigning codes to final diagnoses and procedures, because documentation in the record supports a final diagnosis of *pneumonia due to gram-negative bacteria* (instead of viral pneumonia), the coder would assign the code for that condition.

2. If the coding policy and procedure require coders to generate a *physician query* when the final diagnosis (on the face sheet or in the discharge summary) differs from documentation found in the patient

---

PHYSICIAN QUERY FORM

Patient Name: _John Public_   Date: _April 14, YYYY_
Admission Date: _03/30/YYYY_   Coder: _Lynn Smith_
Patient Number: _123456_   Email Address: _lsmith@clinic.org_
                                                                      Office Number: _(101) 555-1234_

Dear Dr. _Hughes_ ,

The diagnosis or procedure of _____pneumonia_____ requires more specific information in order to assign the most accurate and complete code. The following information is documented in the _discharge summary_.
The patient had signs and symptoms of upper respiratory infection upon admission.

I have the following question(s) about this record:
RSV testing was positive for respiratory syncytial virus. Based on your clinical
judgment, can you provide a diagnosis that represents the RSV positive finding?
If so, please document the condition and causative organism (if known) in the patient
record.

Please respond to this question in the space below, and also document an amendment in the patient record (if appropriate):
Patient has RSV. This is now documented in an addendum to the discharge summary in
the patient record.

FIGURE 1-1A Sample open-ended physician query form

PHYSICIAN QUERY: CHEST PAIN DIAGNOSIS CLARIFICATION

Hospital:	ANYWHERE CLINIC	Patient Number:	123456
Physician:	Dr. Hughes	Admission Date:	03/31/YYYY
Patient Name:	John Public	Discharge Date:	04/04/YYYY
Doctor:	Hughes	Date of Query:	April 5, YYYY

The patient record reflects the following clinical finding(s) (to be completed by coder):

Clinical Indicators:	Location of Documentation in current record:
Chest pain (e.g., description, location, level of exertion)	History and Physical Examination
Signs/Symptoms (e.g., diaphoresis, palpitations, etc.)	Admission Progress Note
Shortness of breath (e.g., respiratory rate, activity)	History and Physical Examination
Abnormal test results (e.g., EKG, cardiac cath, chest x-ray)	EKG report and Chest x-ray report (negative)
Abnormal lab findings (e.g., troponin, CK and CK-MBs)	Laboratory report (cardiac enzymes negative)
Abnormal EGD (e.g., esophagitis, esophageal varices)	Not applicable
Treatment prescribed (e.g., nitroglycerine)	Not applicable

TO THE PHYSICIAN: The following may be a factor in determining and reporting the severity of illness of your patient (to be completed by physician, if applicable).

There is clinical documentation of **chest pain** in the patient record. Clarification of documentation is initiated to the provider when there is conflicting, incomplete, or ambiguous information in the patient record. Please use your clinical judgment in responding to this query. (**Note:** This physician query does not imply that any particular answer is desired or expected.)

Please respond to **ALL 4 sections below.** Per CMS guidelines or facility policy, please document your response in the patient record (e.g., progress note, dictated report).

Section 1: Specificity
- ☐ Cardiac
- ☐ Chest wall
- ☐ Musculoskeletal
- ☒ Psychogenic
- ☐ Atypical
- ☐ Traumatic
- ☐ Other:
- ☐ Unknown

Section 2: Etiology
- ☐ Unstable angina
- ☐ Acute MI
- ☐ Costochondritis
- ☐ Exacerbation of COPD
- ☐ Pneumonia
- ☒ Anxiety
- ☐ GERD
- ☐ Other:
- ☐ Unknown

Section 3: Acuity
- ☐ Acute
- ☐ Acute on chronic
- ☐ Chronic
- ☒ Other: *related to Anxiety*
- ☐ Unknown

Section 4: Present on Admission (POA)
- ☒ Yes
- ☐ No
- ☐ Clinically undetermined
- ☐ Unknown

Coder Name:	Sally Smith, CCS	Extension: 1234	Date:	April 5, YYYY
Physician Signature:	*Mark Hughes, M.D.*		Date:	*April 6, YYYY*

FIGURE 1-1B Sample multiple choice physician query form

record, the coder would submit the following query to the physician, which allows the physician an opportunity to correct the documented final diagnosis if warranted. In this case, the physician changed *viral pneumonia* to *pneumonia due to gram-negative bacteria* (using the proper procedure for amending the patient record).

The assignment of a code to pneumonia due to *gram-negative bacteria* results in reimbursement of about $3,500, and the assignment of a code to *viral pneumonia* results in reimbursement of about $2,500. Not querying the physician would have resulted in a loss of $1,000 to the facility.

This case also includes documentation of signs and symptoms, which are due to the pneumonia. Thus, the coder would *not* assign codes to symptoms of dyspnea, chest pain, fever or signs of rhonchi, wheezing, and rales.

Clinical Documentation Improvement Program

The purpose of a *clinical documentation improvement (CDI) program* is to help health care facilities comply with government programs (e.g., RAC audits, ARRA/HITECH) and other initiatives (Joint Commission accreditation) with the goal of improving health care quality. As part of a CDI program, the CDI specialist initiates concurrent and retrospective reviews of inpatient and outpatient records to identify conflicting, incomplete, or nonspecific provider documentation. Concurrent reviews are performed on patient care units (to access paper-based patient records) or remotely (to access EHRs). The CDI program helps ensure that patient diagnoses and procedures are supported by ICD-10-CM and ICD-10-PCS codes, and CDI specialists use a physician query form to communicate with physicians (and other health care providers) with the intended result of improving documentation, coding, reimbursement, and severity of illness (SOI) and risk of mortality (ROM) classifications. CDI programs are usually associated with acute health care facilities; however, they are also implemented in alternate health care settings (e.g., acute rehabilitation facility, skilled nursing facility). A *clinical documentation improvement (CDI) specialist* is responsible for performing inpatient record reviews for the purpose of:

- implementing documentation clarification and specificity processes (as part of the physician query process);
- using and interpreting clinical documentation improvement statistics;
- conducting research and providing education to improve clinical documentation; and
- ensuring compliance with initiatives that serve to improve the quality of health care, which include:
  - complying with fraud and abuse regulations;
  - enforcing privacy and security of patient information; and
  - monitoring a *health information exchange (HIE)*.

Coding Compliance Program

A *coding compliance program* ensures that the assignment of codes to diagnoses, procedures, and services follows established coding guidelines, such as those published by the Centers for Medicare & Medicaid Services (CMS). Health care organizations write *policies* (guiding principles that indicate "what to do") and *procedures* (processes that indicate "how to do it") to assist in implementing the coding compliance stages of detection, correction, prevention, verification, and comparison.

- *Detection* is the process of identifying potential coding compliance problems. For example, a coder notices that some patient records contain insufficient or incomplete documentation, which adversely impacts coding specificity. The coder brings these records to the attention of the coding compliance officer (e.g., coding supervisor), who implements the next stage of the coding compliance program.
- *Correction* is based on the review of patient records that contain potential coding compliance problems, during which specific compliance issues are identified and problem-solving methods are used to implement necessary improvements (corrections). For example, the coding compliance officer conducts a careful review of the patient records that contain insufficient or incomplete documentation. She determines that all of them are the responsibility of a physician new to the practice, and she prepares educational material specific to documentation issues noted during her review of the patient records.

- *Prevention* involves educating coders and providers so as to prevent coding compliance problems from recurring. For example, the coding compliance officer schedules a meeting with the physician responsible for insufficient or incomplete documentation, and educates the physician about the specific areas of insufficient or incomplete documentation that adversely impact medical coding. This meeting is conducted in a nonconfrontational manner, with education and correction as its goals.

- *Verification* provides an "audit trail" that the detection, correction, and prevention functions of the coding compliance program are being actively performed. For example, the coding compliance officer maintains a file that contains the following:
  - Original codes assigned based on insufficient and incomplete documentation
  - Educational materials prepared specific to the documentation issues
  - Minutes of the educational meeting with the responsible physician
  - Final codes assigned based on sufficient and complete documentation
  - Remittance advice from third-party payer, which contains adjudication (decision about reimbursement, including possible claims denial)

- *Comparison* requires the analysis of internal coding patterns over specified periods of time (e.g., quarterly) as well as the analysis of external coding patterns by using external benchmarks (trends). For example, the coding compliance officer reviews reports of quarterly medical audits to determine whether the new physician's documentation has improved. Such reports contain the results of claims submission, which indicate the number of claims denials based on nonspecific codes submitted as a result of insufficient and incomplete documentation. In addition, the coding compliance officer obtains benchmark data (reports) from third-party payers and compares the coding practices in her facility with those of similar providers; if reimbursement to similar providers is significantly higher (or lower) than that paid to her provider, she initiates the *detection* process in an attempt to identify related coding compliance problems.

An effective coding compliance program monitors coding processes for completeness, reliability, validity, and timeliness.

- *Completeness* ensures that codes are assigned to all *reportable* diagnoses, procedures, and services documented in the patient record. For example, coders review the entire patient record to assign the most specific codes possible.

- *Reliability* allows for the same results to be consistently achieved. For example, when the same patient record is coded by different coding professionals, they assign identical diagnosis and procedure/service codes.

- *Validity* confirms that assigned codes accurately reflect the patient's diagnoses, procedures, and services. For example, coders do *not* assign codes to diagnoses that were not medically managed or treated during an encounter.

- *Timeliness* means that patient records are coded in accordance with established policies and procedures to ensure timely reimbursement.

Computer-Assisted Coding

Computer-assisted coding (CAC) uses software to automatically generate medical codes by "reading" transcribed clinical documentation provided by health care practitioners (Figure 1-2). CAC uses "natural language processing" technology to generate codes that are reviewed and validated by coders for reporting on third-party payer claims. Similar to the medical editor's role in ensuring the accuracy of reports produced from speech recognition technology, the coder's role changes from that of data entry to validation or audit. The coder reviews and approves the CAC-assigned codes, improving efficiency and offering expanded
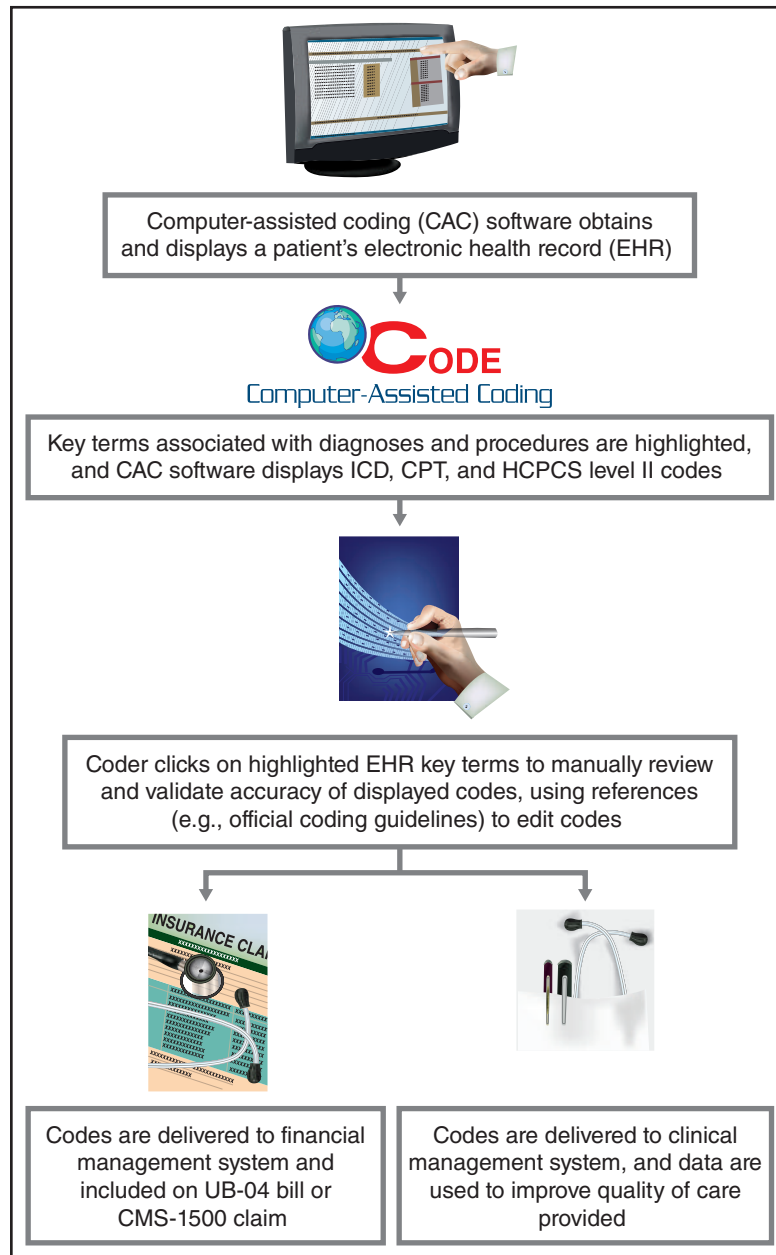
FIGURE 1-2 Computer-assisted coding (CAC)

career opportunities for enthusiastic coders. Thus, coders will use basic data analytic skills to turn data (e.g., CAC-assigned code) into action (coder-reviewed and approved code) using a logical and efficient method.

Coding auditors performed **evidence-based coding**, also referred to as **evidence-verification coding**, which involves clicking on codes that CAC software generates (Figure 1-3) to review electronic health record documentation (evidence) used to generate the code. When it is determined that documentation supports the CAC-generated code, the coding auditor clicks to accept the code. When documentation does not support the CAC-generated code, the coding auditor replaces it with an accurate code. For example, when the CAC-generated ICD-10-CM code does not indicate laterality or does not include a manifestation code, the coding auditor edits codes to ensure accurate reporting.
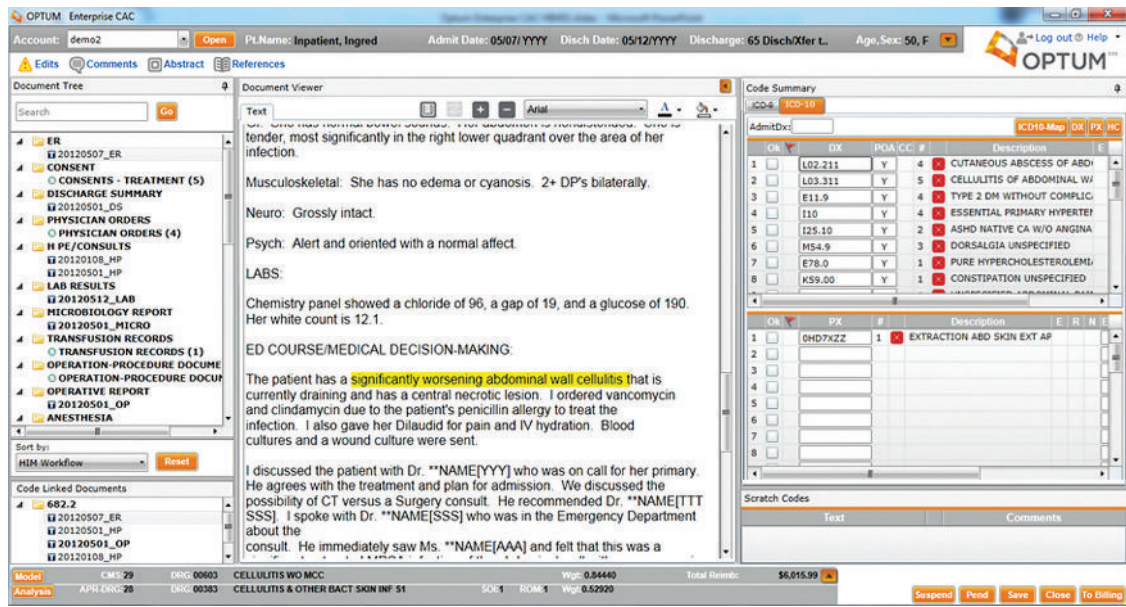
FIGURE 1-3 Sample screen from Optum360 Enterprise computer-assisted coding (CAC) software

Exercise 1.3 – Coding Overview

Instructions: Match the code set description with its type. Answers may be assigned more than once.

_____ 1. Race, ethnicity, type of facility, and type of unit

_____ 2. Substances, equipment, supplies, or other items

_____ 3. Actions taken to prevent, diagnose, treat, or manage diseases, injuries, and impairments

_____ 4. Causes of injury, disease, impairment, or other health-related problems

_____ 5. Diseases, injuries, impairments, other health-related problems, and their manifestations

a. Large code set

b. Small code set

Other Classification Systems, Databases, and Nomenclatures

In addition to the ICD-10-CM, ICD-10-PCS, HCPCS level II national, and CPT coding systems, health care providers use the following classifications, clinical vocabularies, databases, and nomenclatures:

- *Alternative Billing Codes* (ABC codes)
- *Clinical Care Classification* (CCC) *System*
- *Current Dental Terminology* (CDT)
- *Diagnostic and Statistical Manual of Mental Disorders* (DSM)
- *Health Insurance Prospective Payment System* (HIPPS) Rate Codes

- *International Classification of Diseases for Oncology, Third Edition* (ICD-O-3)
- *International Classification of Functioning, Disability and Health* (ICF)
- Logical Observation Identifiers Names and Codes (LOINC)
- *National Drug Codes* (NDC)
- RxNorm
- *Systematized Nomenclature of Medicine Clinical Terms* (SNOMED CT)
- Unified Medical Language System (UMLS)

Alternative Billing Codes (ABC Codes)

The *Alternative Billing Codes* (ABC codes) classify services not included in the CPT manual to describe the service, supply, or therapy provided; they may also be assigned to report nursing services and alternative medicine procedures. Codes are five characters in length, consisting of letters, and are supplemented by two-digit code modifiers to identify the practitioner performing the service.

HIPAA authorized the Secretary of DHHS to permit exceptions from HIPAA transaction and code set standards to commercialize and evaluate proposed modifications to those standards. The ABC code set was granted that exception in 2003, and the codes were being commercialized and evaluated through 2005. The intent was for ABC codes to be adopted as part of the electronic code set (as HCPCS level I and level II were in 2000); however, in 2006, ABC codes could no longer be used in electronic claims processing.

> **EXAMPLE:** During an office visit, an acupuncture physician assessed the health status of a new client and developed a treatment plan, a process that took 45 minutes. ABC code ACAAC-1C is assigned.

Clinical Care Classification (CCC) System

The *Clinical Care Classification* (CCC) *System* provides a new standardized framework and a unique coding structure for assessing, documenting, and classifying home health and ambulatory care. Previously called the *Home Health Care Classification* (HHCC) *System*, CCC consists of two interrelated taxonomies:

- CCC of Nursing Diagnoses
- CCC of Nursing Interventions

CCC care components represent functional, health, behavioral, physiological, and psychological patterns of patient care. The care components serve as a standardized framework for mapping and linking the interrelated CCC taxonomies to each other and to other health-related classifications. They are used to track and measure patient/client care holistically over time, across settings, population groups, and geographic locations.

> **EXAMPLE:** 73-year-old female patient discharged from the hospital after treatment for acute myocardial infarction presents today for the scheduled outpatient cardiac rehabilitation sessions. Assign CCC code C08.1 (cardiac rehabilitation).

Current Dental Terminology (CDT)

The *Current Dental Terminology* (CDT) is published by the American Dental Association (ADA) as an annual revision. It classifies dental procedures and services. Dental providers and ambulatory care settings use the CDT to report procedures and services. CDT codes are also included in HCPCS level II, beginning with the first digit of D. The CDT also includes the Code on Dental Procedures and Nomenclature (Code), instructions for use of the Code, questions and answers, ADA dental claim form completion instructions, and tooth numbering systems.

> **EXAMPLE:** Patient underwent incision and drainage of intraoral soft tissue abscess. CDT code D7510 is assigned.

Diagnostic and Statistical Manual of Mental Disorders (DSM)

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) is published by the American Psychiatric Association as a standard classification of mental disorders used by mental health professionals in the United States. The first edition was published in 1952, and subsequent revisions have been published as:

- DSM-II (1968)
- DSM-III (1980)
- DSM-III-R (1987)
- DSM-IV (1994)
- DSM-IV-TR (2000) (This includes a *text revision* to correct DSM-IV errors, the updating of codes according to ICD-9-CM or ICD-10-CM annual revisions, and so on.)
- DSM-5 (2014)

  DSM-5 is designed for use in a variety of health care settings and consists of three major components:

- Diagnostic classification
- Diagnostic criteria sets
- Descriptive text

  DSM-5 is a multiaxial classification that allows for the collection and classification of information as:

- Axis I: Mental disorders or illnesses, such as substance abuse
- Axis II: Personality disorders or traits, such as mental retardation
- Axis III: General medical illnesses, such as hypertension
- Axis IV: Life events or problems, such as divorce
- Axis V: Global assessment of functioning, or GAF, such as occupational

EXAMPLE: A patient is admitted to the hospital with the diagnosis to agoraphobia with panic attacks. The 38-year-old female also has the diagnosis of hypertension and diabetes mellitus. The patient has an avoidant personality disorder as well, as a result of the agoraphobia. After extensive therapy, the clinician has decided that the patient may be discharged. The clinician believed that the patient's condition could have been attributed to her recent divorce and the death of a close relative. He thinks that her anticipated level of functioning will be quite poor, as in the past year she has had trouble in social and occupational functioning. DSM-5 codes are assigned as follows:

Axis I: Agoraphobia with panic attacks, F40.01

Axis II: Avoidant personality disorder, F60.6

Axis III: Hypertension, I10, and diabetes mellitus, E11.9

Axis IV: Recent divorce and death of close relative

Axis V: Poor

Health Insurance Prospective Payment System (HIPPS) Rate Codes

The *Health Insurance Prospective Payment System* (HIPPS) rate codes are alphanumeric codes consisting of five digits. Each HIPPS code contains intelligence, with certain positions of the code indicating the case-mix group itself and other positions providing additional information (e.g., information about the clinical assessment used to arrive at the code). HIPPS was created as part of the prospective payment system for skilled nursing facilities

in 1998. Additional HIPPS codes were created for other prospective payment systems, including a system for home health agencies in October 2000, and one for inpatient rehabilitation facilities in January 2002. The HIPPS represents specific sets of patient characteristics (or case-mix groups) on which payment determinations are made under several prospective payment systems. HIPPS codes are not assigned from a coding manual; they are created when information for a data set is entered into software.

> **EXAMPLE:** The home health prospective payment system (HHPPS) requires entry of the Outcome and Assessment Information Set (OASIS) data set into grouper software, which generates the five-digit alphanumeric HIPPS code that is entered on the UB-04 claim. For example, HIPPS code HAEJ1 is entered on the UB-04 claim.

International Classification of Diseases for Oncology, Third Edition (ICD-O-3)

The *International Classification of Diseases for Oncology, Third Edition* **(ICD-O-3)** was implemented in 2001 as a classification of neoplasms used by cancer registries throughout the world to record incidence of malignancy and survival rates. The data produced are used to provide information for cancer control programs (e.g., National Comprehensive Cancer Control Program), research activity, treatment planning, and health economics. (The first edition of ICD-O was published in 1976, and a revision of topography codes was published in 1990.) ICD-O-3 codes classify a tumor in the following way:

- Primary site (four-character topography code)
- Morphology (six-character code)
  - Four-digit histology (cell type) code
  - One-digit behavior code (such as malignant, benign, and so on)
  - One-digit aggression code (differentiation or grade)

> **EXAMPLE:** Fibrosarcoma of the left knee. ICD-O-3 codes C49.2 (Knee, NOS) and M8810/39 (Fibroscarcoma, NOS) are assigned.

ICD-O Morphology Codes

ICD-O morphology codes indicate the type of cell that has become neoplastic and its biologic activity; in other words, the kind of tumor that developed and how it behaves. There are three parts to a complete morphology code:

- M as the first character of each morphology code
- 4-digit cell type (histology) (e.g., 8010)
- 1-digit behavior (e.g., /o)
- 1-digit grade, differentiation, or phenotype (e.g., /x1)

  A common root codes the cell type of a tumor, an additional digit codes the behavior, and yet an additional digit codes the grade, differentiation, or phenotype to provide supplementary information about the tumor.

Cancer and Carcinoma

The words *cancer* and *carcinoma* are often (incorrectly) used interchangeably. For example, squamous cell cancer is often used for squamous cell carcinoma. Both conditions happen to have the same ICD-10-CM code. However, a condition such as "spindle cell cancer" could refer to "spindle cell sarcoma" or "spindle cell carcinoma." Each condition has an entirely different ICD-10-CM code assigned to it.

Behavior

The behavior of a tumor is the way it acts within the body. Pathologists use a variety of observations to characterize the behavior of a tumor. A tumor can grow in place without the potential for spread (/0, benign); it can be malignant but still growing in place (/2, noninvasive or in situ); it can invade surrounding tissues (/3, malignant, primary site); or it can disseminate from its point of origin and begin to grow at another site (/6, metastatic).

Fifth-Digit Behavior Codes for Neoplasms

Code	Behavior of Neoplasm
/0	Benign
/1	Uncertain whether benign or malignant Borderline malignancy Low malignant potential Uncertain malignant potential
/2	Carcinoma in situ Intraepithelial Noninfiltrating Noninvasive
/3	Malignant, primary site
/6	Malignant, metastatic site Malignant, secondary site
/9	Malignant, uncertain whether primary or metastatic site

NOTE:

Cancer registries collect data on malignant and in situ neoplasms, or /2 and /3 behavior codes. They do not collect data about behavior codes /6, malignant, metastatic site, or /9, malignant, uncertain whether primary or metastatic site. For example, carcinoma that has spread to the lung and for which the site of origin is unknown is assigned ICD-10-CM code C80.1 (unknown primary site) and ICD-O code M-8010/3 (carcinoma). (The /3 signifies the existence of a malignant neoplasm of a primary site.)

Use of Behavior Code in Pathology Laboratories

Pathologists are usually interested in "specimen coding" (whereas a cancer registry identifies just the primary tumor). A pathologist receives the following tissue specimens on the same patient:

- Biopsy of supraclavicular lymph node
- Resection of fundus of stomach
- Resection of upper lobe bronchus

The pathologist has to track each of these specimens (while the cancer registry tracks only the primary cancer). Each pathological specimen is coded with the appropriate topography and morphology; for example, the term "metastatic" in the pathological diagnosis for tissue specimen, "supraclavicular lymph node (biopsy)," results in assignment of behavior character /6.

Tissue Specimen	Pathological Diagnosis	Codes
Supraclavicular lymph node (biopsy)	Metastatic signet ring cell adenocarcinoma, most likely from stomach (metastatic site)	C77.0 M8490/6
Fundus of stomach (resection)	Signet ring cell adenocarcinoma (primary site)	C16.1 M8490/3
Upper lobe bronchus (resection)	Metastatic signet ring cell adenocarcinoma (metastatic site)	C34.10 M8490/6

Code for Histologic Grading and Differentiation

The highest grade code is assigned according to the description documented in the diagnostic statement. The sixth digit of the morphology code is a single-digit code number that designates the grade of malignant neoplasms. Only malignant tumors are graded. The practice of assigning codes for Histologic grading varies greatly among pathologists throughout the world, and many malignant tumors are not routinely graded.

Sixth Digit Code for Histologic Grading and Differentiation

Code	Grade	Differentiation
1	I	Well differentiated Differentiated, NOS
2	II	Moderately differentiated Moderately well differentiated Intermediate differentiation
3	III	Poorly differentiated
4	IV	Undifferentiated Anaplastic
9		Grade or differentiation not determined, not stated or not applicable

Differentiation describes how much or how little a tumor resembles the normal tissue from which it arose. There is great variability in pathologists' use of differentiation descriptors. In general, adverbs such as *well, moderately, and poorly* indicate degrees of differentiation, which map to grades I, II, and III. Adjectives such as *undifferentiated* and *anaplastic* usually map to grade IV. Grading codes are assigned to all malignant neoplasms listed in ICD-O *if the diagnosis documents the grade and/or differentiation.*

EXAMPLE: The diagnosis *squamous cell carcinoma, grade* II, which is described as *moderately well differentiated squamous cell carcinoma*, is assigned morphology code M-8070/32.

When a diagnosis indicates two different degrees of grading or differentiation, the higher number is assigned as the grading code.

EXAMPLE: *Moderately differentiated squamous cell carcinoma with poorly differentiated areas* is assigned grading code 3, and the morphology code is M-8070/33.

This same sixth-digit column is also used to indicate cell lineage for leukemias and lymphomas, which provides useful ICD-O-3 comparison data (with ICD-O-2). Cell lineage is implicit in the four-digit histology code, and an additional grade of differentiation (sixth digit) code is not required. However, some registries assign the sixth digit to identify cases in which the diagnosis is supported by immunophenotypic data. In such instances, the immunophenotype code takes precedence over other diagnostic terms for grade or differentiation (e.g., well differentiated, grade III).

Sixth Digit for Immunophenotype Designation for Lymphomas and Leukemias

Code	Designation
5	T-cell
6	B-cell
	Pre-B
	B-precursor
7	Null cell
	Non T-non B
8	NK cell
	Natural killer cell
9	Cell type not determined, not stated, or not applicable

International Classification of Functioning, Disability and Health (ICF)

The *International Classification of Functioning, Disability and Health* (ICF) classifies health and health-related domains that describe body functions and structures, activities, and participation. (The ICF was originally published as the *International Classification of Injuries, Disabilities, and Handicaps (ICIDH)* in 1980.) The ICF complements ICD-10, looking beyond mortality and disease.

> **EXAMPLE:** A trauma patient is evaluated two years after the initial injury, and the physician determines that the patient has a severe impairment in mental function as well as a severe impairment of the upper extremity. The patient experiences moderate difficulty in bathing without the use of assistive devices. Products for education are a moderate barrier for this patient. The following ICF codes are assigned:
>
> - b175.3 (severe impairment in mental function)
> - s730.3 (severe impairment of the upper extremity)
> - a5101.2 (moderate difficulty bathing without use of assistive devices)
> - e145.2 (products for education are a moderate barrier)

Logical Observation Identifiers Names and Codes (LOINC)

Logical Observation Identifiers Names and Codes (LOINC) is an electronic database and universal standard that is used to identify medical laboratory observations and for the purpose of clinical care and management. Developed in 1994, it is currently maintained by the Regenstrief Institute, a U.S. non-profit medical research organization. Health care providers use LOINC codes when reportable disease results are sent to state and federal public health laboratories.

The Centers for Disease Control and Prevention (CDC) has developed a LOINC panel specifically for public health case reporting called the Reportable Condition Mapping Tool (RCMT). This panel should be of considerable assistance to health care providers in identifying the correct LOINC code for their reports. Laboratories are also required to archive LOINC codes for test results they receive from other laboratories to which they have referred specimens and, similarly, referral laboratories should provide their clients with LOINC codes when sending results.

> **EXAMPLE:** The complete blood count (CBC) laboratory test of blood (without differential) is assigned LOINC code 24317-0.

National Drug Codes (NDC)

The *National Drug Codes* (NDC) is published by a variety of vendors, and the coding system is in the public domain. It is managed by the Food and Drug Administration (FDA) and was originally established as part of an out-of-hospital drug reimbursement program under Medicare Services as a universal product identifier for human drugs. The current edition is limited to prescription drugs and a few selected over-the-counter (OTC) products. Pharmacies use NDC to report transactions, and some health care professionals also report NDC on claims.

> **EXAMPLE:** Aspirin tablets, 800 milligrams, is assigned NDC code 64125-*106-01. (There are many different NDC codes for aspirin, depending on dosage, manufacturer, and so on.)

RxNorm

RxNorm is a nomenclature that provides normalized names for clinical drugs and links its names to many of the drug vocabularies commonly used in pharmacy management and drug interaction software, including those of First Databank, Micromedex, MediSpan, Gold Standard Drug Database, and Multum. By providing links among

these vocabularies, RxNorm can mediate messages among systems that do not use the same software and vocabulary.

RxNorm is a normalized naming system for generic and branded drugs, and it is a tool for supporting semantic interoperation among drug terminologies and pharmacy knowledge base systems. The National Library of Medicine (NLM) produces RxNorm. The NLM receives drug names from many data sources, analyzes and processes the data, and outputs the data into RxNorm files in a standard format.

Purpose of RxNorm

RxNorm is a terminology built on and derived from other terminologies. RxNorm reflects and preserves the meanings, drug names, attributes, and relationships from its sources. Hospitals, pharmacies, and other organizations use computer systems to record and process drug information. Because these systems use many different sets of drug names, it can be difficult for one system to communicate with another. To address this challenge, RxNorm provides normalized names and unique identifiers for medicines and drugs. The goal of RxNorm is to allow computer systems to communicate drug-related information efficiently and unambiguously.

Scope of RxNorm

RxNorm contains the names of prescription and many over-the-counter drugs available in the United States.

RxNorm includes generic and branded:

- Clinical drugs (pharmaceutical products given to or taken by a patient with therapeutic or diagnostic intent)
- Drug packs (packs that contain multiple drugs, or drugs designed to be administered in a specified sequence)
- Radiopharmaceuticals, bulk powders, contrast media, food, dietary supplements, and medical devices, such as bandages and crutches, which are out of scope for RxNorm

NOTE:

RxNorm also includes the National Drug File—Reference Terminology (NDF-RT), created for the Veterans Health Administration. NDF-RT is a terminology used to code clinical drug properties, including mechanism of action, physiologic effect, and therapeutic category.

EXAMPLE: When Synthroid is entered in the RxNorm database, results display levothyroxine as the ingredient and Levothyroxine Sodium as the precise ingredient. In addition, all possible dosages of the ingredient and brand name are listed under the clinical drug component, branded drug component, clinical drug or pack, and branded drug or pack. Oral product or pill is listed below the dose form group, with expanded information listed below the clinical dose form group and branded dose form group.

Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT)

The *Systematized Nomenclature of Medicine Clinical Terms* **(SNOMED CT)** is a comprehensive and multilingual clinical terminology of body structures, clinical findings, diagnoses, medications, outcomes, procedures, specimens, therapies, and treatments. It combines the content and structure of a previous revision of SNOMED with the following medical nomenclatures:

- United Kingdom's *National Health Service's Clinical Terms Version 3* (formerly called *Read Codes*, developed in the early 1980s by Dr. James Read to record and retrieve primary care data in a computer)
- *Logical Observation Identifier Names and Codes (LOINC®)* database, which provides a universal code system for reporting laboratory and other clinical observations.

SNOMED CT supports the development of comprehensive high-quality clinical content in patient records; it provides a standardized way to represent clinical phrases documented by clinicians, facilitating automatic interpretation (e.g., computer-assisted coding).

Unified Medical Language System (UMLS)

The **Unified Medical Language System (UMLS)** is a set of files and software that allows many health and biomedical vocabularies and standards to enable interoperability among computer systems. UMLS can be used to enhance or develop applications, including electronic health records, classification tools, dictionaries, and language translators. The UMLS is used to link health information, medical terms, drug names, and billing codes across different computer systems.

> **EXAMPLE 1:** UMLS is used to link billing codes, drug names, medical terms, and health information across different computer systems, such as among a patient's health care provider, pharmacy, and third-party payer or patient care coordination among several departments within a hospital.

> **EXAMPLE 2:** UMLS uses include search engine retrieval, data mining, public health statistics reporting, and medical terminology research.

The UMLS contains three tools, called Knowledge Sources, and include the following:

- Metathesaurus (terms and codes from many vocabularies, including CPT, ICD-10-CM, LOINC, MeSH®, RxNorm, and SNOMED CT) (MeSH is the National Library of Medicine's controlled vocabulary thesaurus.)
- Semantic network (broad categories, which are semantic types, and their relationships, which are semantic relations)
- SPECIALIST lexicon and lexical tools (natural language processing tools)

Exercise 1.4 – Other Classification Systems and Databases

Instructions: Match the classification or database description with its name.

_____	**1.** Classifies dental procedures and services	**a.** ABC codes
_____	**2.** Classifies health and health-related domains that describe body functions and structures, activities, and participation	**b.** CCC
		c. CDT
_____	**3.** Classifies services not included in the CPT manual to describe the alternative medical service, supply, or therapy provided	**d.** DSM
		e. HIPPS
		f. ICD-O-3
_____	**4.** Electronic database and universal standard used to identify medical laboratory observations and for clinical care and management	**g.** ICF
		h. LOINC
_____	**5.** Implemented in 2001 to classify neoplasms	**i.** RxNorm
_____	**6.** Links health information, medical terms, drug names, and billing codes across different computer systems	**j.** UMLS
_____	**7.** Provides new standardized framework and unique coding structure for assessing, documenting, and classifying home health and ambulatory care	

(continues)

Exercise 1.4 – *continued*

_____ **8.** Represents specific sets of patient characteristics (or case-mix groups) on which payment determinations are made under several prospective payment systems

_____ **9.** Standard classification of mental disorders used by mental health professionals in the United States

_____ **10.** Allows computer systems to communicate drug-related information efficiently and unambiguously

Documentation as Basis for Coding

Health care providers are responsible for documenting and authenticating legible, complete, and timely patient records in accordance with federal regulations (e.g., Medicare CoP) and accrediting agency standards (e.g., The Joint Commission). The provider is also responsible for correcting or editing errors in patient record documentation.

A **patient record** (or **medical record**) is the business record for a patient encounter (inpatient or outpatient) that documents health care services provided to a patient. It stores patient demographic data and documentation that supports diagnoses, and justifies treatment. It also contains the results of treatment provided. (**Demographic data** are patient identification information that is collected according to facility policy and includes information such as the patient's name, date of birth, and mother's maiden name.) The primary purpose of the record is to provide for **continuity of care**, which involves documenting patient care services so that others who treat the patient have a source of information on which to base additional care and treatment. The record also serves as a communication tool for physicians and other patient care professionals. It assists in planning individual patient care and documenting a patient's illness and treatment. Secondary purposes of the record do not relate directly to patient care and include:

- Evaluating the quality of patient care
- Providing data for use in clinical research, epidemiology studies, education, public policy making, facilities planning, and health care statistics
- Providing information to third-party payers for reimbursement
- Serving the medicolegal interests of the patient, facility, and providers of care

Documentation includes dictated and transcribed, keyboarded or handwritten, and computer-generated notes and reports recorded in the patient's records by a health care professional. Documentation must be dated and authenticated (with a legible signature or electronic authentication).

In a teaching hospital, documentation must identify what service was furnished, how the teaching physician participated in providing the service, and whether the teaching physician was physically present when care was provided. A **teaching hospital** is engaged in an approved graduate medical education (GME) residency program in medicine, osteopathy, dentistry, or podiatry. A **teaching physician** is a physician (other than another resident physician) who supervises residents during patient care. A **resident physician** is an individual who participates in an approved GME program. A **hospitalist** is a physician who provides care for hospital inpatients. They are often internists (e.g., internal medicine specialists) who handle a patient's entire admission process, including examining the patient, reviewing patient history and medications, writing admission orders, counseling the patient, and performing other tasks that would have required the primary care physician to travel to the hospital to coordinate the inpatient admission. Similar to the concept of emergency physicians practicing in the hospital's emergency department, hospitalists are based in the hospital and provide inpatient care. Thus, their practice is location-based instead of organ-centered (e.g., neurology) or age-centered (e.g., gerontology).

Medical Necessity

Documentation in the patient record serves as the basis for coding. The information in the record must support codes submitted on claims for third-party payer reimbursement processing. The patient's diagnosis must also justify diagnostic and therapeutic procedures or services provided. This is called **medical necessity** and requires providers to document services or supplies that are proper and needed for the diagnosis or treatment of a medical condition; provided for the diagnosis, direct care, and treatment of a medical condition; consistent with standards of good medical practice in the local area; and not mainly for the convenience of the physician or health care facility.

It is important to remember the familiar phrase, "If it wasn't documented, it wasn't done." The patient record serves as a medicolegal document and a business record. If a provider performs a service but does not document it, the patient (or third-party payer) can refuse to pay for that service, resulting in lost revenue for the provider. In addition, because the patient record serves as an excellent defense of the quality of care administered to a patient, missing documentation can result in problems if the record has to be admitted as evidence in a court of law.

> **EXAMPLE OF MISSING PATIENT RECORD DOCUMENTATION:** A representative from XYZ Insurance Company reviewed 100 outpatient claims submitted by the Medical Center to ensure that all services billed were documented in the patient records. Upon reconciliation of claims with patient record documentation, the representative denied payment for 13 services (totaling $14,000) because reports of the services billed were not found in the patient records. The facility must pay back the $14,000 it received from the payer as reimbursement for the claims submitted.

> **EXAMPLE OF MEDICAL NECESSITY:** The patient underwent an x-ray of his right knee, and the provider documented "severe right shoulder pain" in the record. The coder assigned a CPT code to the "right knee x-ray" and an ICD code to the "right shoulder pain." In this example, the third-party payer will deny reimbursement for the submitted claim because the *reason* for the x-ray (shoulder pain) does not match the *type* of x-ray performed. For medical necessity, the provider should have documented a diagnosis such as "right knee pain."

Patient Record Formats

Health care facilities and physicians' offices usually maintain either manual or automated records, and sometimes maintain a hybrid record. A **manual record** is paper-based, while an **automated record** uses computer technology. A **hybrid record** consists of both paper-based and computer-generated (electronic) documents, which means the facility or office creates and stores some patient reports as paper-based records (e.g., handwritten progress notes, physician orders, and graphic charts) and some documents using a computer (e.g., transcribed reports and automated laboratory results). A variety of formats are used to maintain manual records, which include the source-oriented record (SOR), problem-oriented record (POR), and integrated record. Automated record formats include the electronic health record (EHR) (or computer-based patient record, CPR), electronic medical record (EMR), and document imaging. Hybrid records use a combination format, such as the POR for paper-based reports and EMR for computer-stored reports.

NOTE:

True EHRs are generated by multiple providers using specialized software, and results are stored electronically in a format that is easily retrievable and viewable by users.

Manual Record Formats

Source-oriented record (SOR) (or **sectionalized record**) reports are organized according to documentation (or data) source (e.g., ancillary, medical, and nursing). Each documentation (or data) source is located in a labeled section.

The **problem-oriented record (POR)** systematic method of documentation consists of four components:

- Database
- Problem list
- Initial plan
- Progress notes

The POR **database** contains patient information collected on each patient, including the following:

- Chief complaint
- Present conditions and diagnoses
- Social data
- Past, personal, medical, and social history
- Review of systems
- Physical examination
- Baseline laboratory data

The POR **problem list** serves as a table of contents for the patient record because it is filed at the beginning of the record and contains a numbered list of the patient's problems, which helps to index documentation throughout the record. The POR **initial plan** contains the strategy for managing patient care and any actions taken to investigate the patient's condition and to treat and educate the patient. The initial plan consists of three categories:

- **Diagnostic/management plans**: Plans to learn more about the patient's condition and the management of the conditions.
- **Therapeutic plans**: Specific medications, goals, procedures, therapies, and treatments used to treat the patient.
- **Patient education plans**: Plans to educate the patient about conditions for which the patient is being treated.

The POR **progress notes** are documented for each problem assigned to the patient, using the SOAP structure:

- **Subjective (S)**: Patient's statement about how he or she feels, including symptomatic information (e.g., "I have a headache.").
- **Objective (O)**: Observations about the patient, such as physical findings, or lab or x-ray results (e.g., chest x-ray negative).
- **Assessment (A)**: Judgment, opinion, or evaluation made by the health care provider (e.g., acute headache).
- **Plan (P)**: Diagnostic, therapeutic, and education plans to resolve the problems (e.g., patient to take Tylenol as needed for pain).

A **discharge note** is documented in the progress notes section of the POR to summarize the patient's care, treatment, response to care, and condition on discharge—documentation of all problems is included. A **transfer note** is documented when a patient is being transferred to another facility. It summarizes the reason for admission, current diagnoses and medical information, and reason for transfer.

Integrated record reports are arranged in strict chronological date order (or in reverse date order), which allows for observation of how the patient is progressing (e.g., responds to treatment) based on test results. Many facilities integrate only physician and ancillary services (e.g., physical therapy) progress notes, which require entries to be identified by appropriate authentication (e.g., complete signature of the professional documenting the note as Mary Smith, RRT, registered respiratory therapist).

Automated Record Formats

The **electronic health record (EHR)** is a collection of patient information documented by a number of providers at different facilities regarding one patient. It is a multidisciplinary (many specialties) and multienterprise (many facilities) approach to record keeping. The EHR provides access to complete and accurate health problems, status, and treatment data; it contains alerts (e.g., of drug interaction) and reminders (e.g., prescription renewal notice) for health care providers. According to the *Journal of Contemporary Dental Practice*, February 15, 2002, some professionals prefer to "use *electronic* instead of the earlier term *computer-based* because *electronic* better describes the medium in which the patient record is managed."

The **electronic medical record (EMR)** is created on a computer, using a keyboard, a mouse, an optical pen device, a voice-recognition system, a scanner, or a touch screen. Records are created using vendor software, which also assists in provider decision making (e.g., alerts, reminders, clinical decision support systems, and links to medical knowledge). Numerous vendors offer EMR software, mostly to physician office practices that require practice management solutions (e.g., appointment scheduling, claims processing, clinical notes, patient registration).

Document imaging often supplements the EHR or EMR by converting paper records (e.g., consent to treatment signed by patients) to an electronic format using laser technology to create the image; a **scanner** is used to capture paper record images onto the storage media. The paper record must be prepared for scanning (e.g., removal of staples) so documents can pass through the scanner properly using a document feeder that is attached to the scanner; each report is pulled through the scanner so the image is saved. Each scanned page is **indexed**, which means it is identified according to a unique identification number (e.g., patient record number). A unique feature is that documents for the same patient do *not* have to be scanned at the same time. Because each scanned page is indexed, the complete patient record can be retrieved even when a patient's reports are scanned at a later time.

Documentation Cloning Is an EMR/EHR Concern

Electronic Health Records Provider Fact Sheet. (Permission to reuse in accordance with http://www.cms.gov content reuse and linking policy.)

Medicare administrative contractors noted the frequency of electronic medical records (EMRs) and electronic health records (EHRs) that contain identical documentation across services. This was likely the result of *documentation cloning*, which involves using the EMR/EHR to bring information from previous patient encounters forward to the current encounter without updating that information. Documentation must reflect patient conditions and treatment for each encounter. Bringing forward previous documentation and simply changing the date in the EHR or EMR is unacceptable. The U.S. Department of Health and Human Services, Office of Inspector General (HHS-OIG) indicated its staff continue paying close attention to EMR/EHR documentation cloning.

Exercise 1.5 – Documentation as Basis for Coding

Instructions: If the statement in the first column indicates a primary purpose of the patient record, enter *a*. If the statement indicates a secondary purpose of the patient record, enter *b*.

_____ **1.** Continuity of patient care   **a.** Primary purpose

_____ **2.** Evaluating quality of patient care   **b.** Secondary purpose

_____ **3.** Providing data for use in clinical research

_____ **4.** Serving medicolegal interests of patient, facility, and providers

_____ **5.** Submitting information to payers for reimbursement

Health Data Collection

Health data collection is performed by health care facilities and providers for the purpose of administrative planning, submitting statistics to state and federal government agencies (and other organizations), and reporting health claims data to third-party payers.

FIGURE 1-4 Sample data entry screen with ICD-10-CM and ICD-10-PCS codes and descriptions

Reporting Hospital Data

Hospitals and other health care facilities use **automated case abstracting software** to collect and report inpatient and outpatient data for statistical analysis and reimbursement purposes. Data are entered in an abstracting software program (Figure 1-4), and the facility's billing department imports it to the **UB-04** (or **CMS-1450**) claim (Figure 1-5) for submission to third-party payers. The facility's information technology department generates reports (Figure 1-6), which are used for statistical analysis. The UB-04 (or CMS-1450) is a standard claim (uniform bill) submitted by health care institutions to payers for inpatient and outpatient services. (The UB-04 is based on the UB-92, which was developed in 1992 and discontinued in 2007. There was also a UB-82, which was developed in 1982 and discontinued when the UB-92 was implemented.)

EXAMPLE: Procedure data reports, profit and loss statements, and patient satisfaction surveys are used by health care planning and forecasting committees to determine the types of procedures performed at their facilities and the costs associated with providing such services. As a result of report analysis, procedures that contribute to a facility's profits and losses can be determined; in addition, some services may be expanded while others are eliminated.

Reporting Physician Office Data

Computerized physicians' offices use medical management software to enter claims data and either electronically submit CMS-1500 claims data to third-party payers or print paper-based CMS-1500 claims that are mailed or faxed to clearinghouses or payers for processing. The **CMS-1500** is a standard claim submitted by physicians' offices to third-party payers. **Medical management software** (e.g., MediSoft, The Medical Manager) is a combination of practice management and medical billing software that automates the daily workflow and procedures of a physician's office or clinic. The software automates the following functions:

- Appointment scheduling (e.g., initial and follow-up appointments) (Figure 1-7)
- Claims processing (e.g., CMS-1500 claims processing) (Figure 1-8)
- Patient invoicing (e.g., automated billing) (Figure 1-9)
- Patient management (e.g., patient registration) (Figure 1-10)
- Report generation (e.g., accounts receivable aging report) (Figure 1-11)