Healthcare Documentation Program

Course Three

Lesson 22—Resources for the Healthcare Professional
Lesson 23—ICD-9-CM Coding Introduction
Lesson 24—ICD-9-CM Coding—From Infections to Blood Diseases
Lesson 25—ICD-9-CM Coding—From Mental Disorders to Circulatory System
Lesson 26—ICD-9-CM Coding—From Respiratory System to Complications of Pregnancy
Lesson 27—ICD-9-CM Coding—From Diseases of the Skin to Conditions in the Perinatal Period
Lesson 28—ICD-9-CM Coding—From Symptoms to Complications
Lesson 29—V Codes, E Codes and ICD-9-CM Coding Practicum
Lesson 30—The Future of Health Care
Acknowledgments

Editorial Staff
Kimberly Fields, M.A.
Janet Perry, B.A.
Katy Little, M.L.I.S.
Leslie Ballentine, M.S.
Kathy DeVault, A.A.S., RHIT
Brenda Blomberg, B.A., CPC
Stephanie MacLeod, M.S.
Joyce Jeckewicz
Jessica Tuttle

Design/Layout
Connie Hunsader
Sandy Petersen
D. Brent Hauseman
Jessica Babb-Raymundo

For more information contact:
At-Home Professions
Fort Collins, CO 80525
www.at-homeprofessions.edu
# Table of Contents

## Lesson 22: Resources for the Healthcare Professional

Step 1: Learning Objectives for Lesson 22 ........................................................................................................... 1  
Step 2: Lesson Preview .......................................................................................................................................... 1  
Step 3: Associations for the Healthcare Professional ......................................................................................... 2  
Step 4: Credentialing ........................................................................................................................................... 5  
Step 5: Practice Exercise 22-1 .......................................................................................................................... 8  
Step 6: Review Practice Exercise 22-1 .............................................................................................................. 9  
Step 7: Healthcare Resources ............................................................................................................................ 9  
Step 8: Practice Exercise 22-2 .......................................................................................................................... 16  
Step 9: Review Practice Exercise 22-2 ............................................................................................................. 16  
Step 10: Lesson Summary ................................................................................................................................... 17  
Endnotes .............................................................................................................................................................. 17  

## Lesson 23: ICD-9-CM Coding Introduction

Step 1: Learning Objectives for Lesson 23 ........................................................................................................... 1  
Step 2: Lesson Preview .......................................................................................................................................... 1  
Step 3: History of the International Classification of Diseases ........................................................................... 2  
  The WHO ......................................................................................................................................................... 3  
  ICD-9-CM ....................................................................................................................................................... 3  
Step 4: Why Code? ............................................................................................................................................... 4  
Step 5: ICD-10 .................................................................................................................................................... 5  
  Impact for Coders............................................................................................................................................ 5  
Step 6: ICD-9-CM vs. ICD-10-CM ...................................................................................................................... 6  
Step 7: Practice Exercise 23-1 .......................................................................................................................... 6  
Step 8: Review Practice Exercise 23-1 .............................................................................................................. 7  
Step 9: Organization of Volume 2, Alphabetic Index to Diseases ICD-9-CM ......................................................... 8  
  Main Terms .................................................................................................................................................... 9  
  Subterms ....................................................................................................................................................... 10  
Step 10: Organization of Volume 1, Tabular List ................................................................................................. 12  
Step 11: Practice Exercise 23-2 ........................................................................................................................ 13  
Step 12: Review Practice Exercise 23-2 ........................................................................................................... 15  
Step 13: Introduction to Coding Guidelines ...................................................................................................... 15  
  Cross-reference Terms .................................................................................................................................. 16  
Step 14: Practice Exercise 23-3 ........................................................................................................................ 24
Lesson 24: ICD-9-CM Coding—
From Infections to Blood Diseases

Step 1: Learning Objectives for Lesson 24 ................................................................. 1

Step 2: Lesson Preview .............................................................................................. 1

Step 3: Infectious and Parasitic Diseases (001-139), Part 1 ..................................... 2
  Intestinal Infectious Diseases (001-009) ............................................................... 3
  Tuberculosis (010-018) ....................................................................................... 3
  Zoonotic Bacterial Diseases (020-027) ............................................................... 5
  Other Bacterial Diseases (030-041) .................................................................. 5
  Human Immunodeficiency Virus (HIV) Infection (042) ..................................... 6

Step 4: Practice Exercise 24-1 .................................................................................. 9

Step 5: Review Practice Exercise 24-1 .................................................................... 12

Step 6: Infectious and Parasitic Diseases (001-139), Part 2 ................................. 13
  Poliomyelitis and Other Non-Arthropod-Borne Viral Diseases and
  Prion Diseases of Central Nervous System (045-049) .................................... 13
  Viral Diseases Generally Accompanied by Exanthem (050-059) ....................... 13
Lesson 25: ICD-9-CM Coding—
From Mental Disorders to Circulatory System

Step 1: Learning Objectives for Lesson 25 ................................................................. 1
Step 2: Lesson Preview ................................................................................................. 1
Step 3: Mental, Behavioral and Neurodevelopmental Disorders (290-319) ................. 2
  Psychoses (290-299) ................................................................................................. 2
  Neurotic Disorders, Personality Disorders, and Other Nonpsychotic Mental Disorders (300-316) ...... 4
  Intellectual Disabilities (317-319) ............................................................................ 6
Step 4: Practice Exercise 25-1 .................................................................................... 6
Step 5: Review Practice Exercise 25-1 ......................................................................... 9
Step 6: Diseases of the Nervous System and Sense Organs (320-389), Part 1 ............ 10
  Inflammatory Diseases of the Central Nervous System (320-326) ......................... 10
  Hereditary and Degenerative Diseases of the Central Nervous System (330-337) .......... 11
  Other Headache Syndromes (339) ............................................................................ 13
  Other Disorders of the Central Nervous System (340-349) .................................... 14
  Disorders of the Peripheral Nervous System (350-359) ........................................ 16
Step 7: Practice Exercise 25-2 .................................................................................... 18
Step 8: Review Practice Exercise 25-2 ......................................................................... 21
Step 9: Diseases of the Nervous System and Sense Organs (320-389), Part 2 ............ 22
  Disorders of the Eye and Adnexa (360-379) ............................................................ 22
  Diseases of the Ear and Mastoid Process (380-389) ............................................. 26
Step 10: Practice Exercise 25-3 .................................................................................. 27
Step 11: Review Practice Exercise 25-3 ....................................................................... 28
Step 12: Diseases of the Circulatory System (390-459), Part 1 ................................. 28
  Acute Rheumatic Fever (390-392) .......................................................................... 29
  Chronic Rheumatic Heart Disease (393-398) ......................................................... 29
  Hypertensive Disease (401-405) .............................................................................. 31
  Ischemic Heart Disease (410-414) ........................................................................... 32
Step 13: Practice Exercise 25-4 .................................................................................. 35
Step 14: Review Practice Exercise 25-4 ....................................................................... 36
Step 15: Diseases of the Circulatory System (390-459), Part 2 ................................. 36
  Diseases of Pulmonary Circulation (415-417) ......................................................... 36
  Other Forms of Heart Disease (420-429) ............................................................... 36
  Cerebrovascular Disease (430-438) ........................................................................ 37
  Diseases of Arteries, Arterioles, and Capillaries (440-449) ...................................... 39
### Table of Contents

Diseases of Veins and Lymphatics, and Other Diseases of the Circulatory System (451-459) .......... 40

Step 16: Practice Exercise 25-5 ........................................................................................................... 40
Step 17: Review Practice Exercise 25-5 ............................................................................................... 41
Step 18: Lesson Summary .................................................................................................................... 41
Step 19: Quiz 17 ..................................................................................................................................... 42

It’s Time to Order Your Next Course .................................................................................................. 45

#### Lesson 26: ICD-9-CM Coding—From Respiratory System to Complications of Pregnancy

Step 1: Learning Objectives for Lesson 26 ...................................................................................... 1
Step 2: Lesson Preview .......................................................................................................................... 1

Step 3: Diseases of the Respiratory System (460-519) ................................................................. 2
  - Acute Respiratory Infections (460-466) ......................................................................................... 2
  - Other Diseases of the Upper Respiratory Tract (470-478) ......................................................... 3
  - Pneumonia and Influenza (480-488) .............................................................................................. 4
  - Chronic Obstructive Pulmonary Disease and Allied Conditions (490-496) ......................... 5
  - Pneumoconioses and Other Lung Diseases due to External Agents (500-508) .................. 7
  - Other Diseases of the Respiratory System (510-519) ................................................................ 8

Step 4: Practice Exercise 26-1 ............................................................................................................. 9
Step 5: Review Practice Exercise 26-1 ............................................................................................... 10

Step 6: Diseases of the Digestive System (520-579) ........................................................................ 10
  - Diseases of Oral Cavity, Salivary Glands, and Jaws (520-529) ................................................ 10
  - Diseases of Esophagus, Stomach, and Duodenum (530-539) ................................................... 11
  - Appendicitis (540-543) .................................................................................................................. 13
  - Hernia of Abdominal Cavity (550-553) ......................................................................................... 14
  - Noninfectious Enteritis and Colitis (555-558) .............................................................................. 15
  - Other Diseases of Intestines and Peritoneum (560-569) ............................................................. 15
  - Other Diseases of Digestive System (570-579) .......................................................................... 17

Step 7: Practice Exercise 26-2 ............................................................................................................. 18
Step 8: Review Practice Exercise 26-2 ............................................................................................... 19

Step 9: Diseases of the Genitourinary System (580-629) .............................................................. 19
  - Nephritis, Nephrotic Syndrome, and Nephrosis (580-589) ....................................................... 20
  - Other Diseases of Urinary System (590-599) ............................................................................. 21
  - Diseases of Male Genital Organs (600-608) ............................................................................... 22
  - Disorders of Breast (610-612) ..................................................................................................... 23
  - Inflammatory Disease of Female Pelvic Organs (614-616) ......................................................... 24
Lesson 27: ICD-9-CM Coding—From Diseases of the Skin to Conditions in the Perinatal Period

Step 1: Learning Objectives for Lesson 27 ............................................................................................ 1
Step 2: Lesson Preview ......................................................................................................................... 1
Step 3: Diseases of the Skin and Subcutaneous Tissue (680-709) ...................................................... 2
  Infections of Skin and Subcutaneous Tissue (680-686) ................................................................. 3
  Other Inflammatory Conditions of Skin and Subcutaneous Tissue (690-698) ......................... 4
  Other Diseases of Skin and Subcutaneous Tissue (700-709) ..................................................... 5
Step 4: Practice Exercise 27-1 ............................................................................................................ 6
Step 5: Review Practice Exercise 27-1 ............................................................................................... 9
Step 6: Diseases of the Musculoskeletal System and Connective Tissue (710-739) ..................... 10
  Arthropathies and Related Disorders (710-719) ........................................................................ 10
  Dorsopathies (720-724) ................................................................................................................ 12
  Rheumatism, Excluding the Back (725-729) ............................................................................... 13
  Osteopathies, Chondropathies, and Acquired Musculoskeletal Deformities (730-739) ............ 14
Step 7: Practice Exercise 27-2 ........................................................................................................... 15
Step 8: Review Practice Exercise 27-2 ............................................................................................. 19
Step 9: Congenital Anomalies (740-759) .......................................................................................... 19
Step 10: Practice Exercise 27-3 ........................................................................................................ 23
Step 11: Review Practice Exercise 27-3 .......................................................................................... 25

Step 10: Practice Exercise 26-3 ....................................................................................................... 28
Step 11: Review Practice Exercise 26-3 .......................................................................................... 31
Step 12: Complications of Pregnancy, Childbirth, and the Puerperium (630-679) ...................... 32
  ICD-9-CM Guidelines: General Rules for Obstetric Cases ............................................................... 32
  Ectopic and Molar Pregnancy (630-633) .......................................................................................... 33
  Other Pregnancy with Abortive Outcome (634-639) ..................................................................... 33
  Complications Mainly Related to Pregnancy (640-649) ............................................................... 34
  Normal Delivery, and Other Indications for Care in Pregnancy, Labor, and Delivery (650-659) .... 34
  Complications Occurring Mainly in the Course of Labor and Delivery (660-669) .................... 36
  Complications of the Puerperium (670-677) ................................................................................. 39
Step 13: Practice Exercise 26-4 ....................................................................................................... 41
Step 14: Review Practice Exercise 26-4 .......................................................................................... 42
Step 15: Lesson Summary ................................................................................................................ 42
Step 16: Quiz 18 ............................................................................................................................... 43

Just for Fun ........................................................................................................................................ 43
## Table of Contents

Step 1: Learning Objectives for Lesson 28 .............................................................................. 1
Step 2: Lesson Preview ............................................................................................................. 1
Step 3: Symptoms, Signs, and Ill-Defined Conditions (780-799) ........................................ 2
  Symptoms (780-789) ............................................................................................................. 2
  Nonspecific Abnormal Findings (790-796) ........................................................................ 10
  Ill-Defined and Unknown Causes of Morbidity and Mortality (797-799) .................... 10
Step 4: Practice Exercise 28-1 .............................................................................................. 11
Step 5: Review Practice Exercise 28-1 ................................................................................ 14
Step 6: Injury and Poisoning (800-999) Part 1 ....................................................................... 15
  Fractures (800-829) ............................................................................................................. 15
  Dislocation (830-839) ........................................................................................................ 24
  Sprains and Strains of Joints and Adjacent Muscles (840-848) ...................................... 25
  Intracranial Injury, Excluding Those with Skull Fracture (850-854) ......................... 25
  Internal Injury of Thorax, Abdomen, and Pelvis (860-869) ........................................... 25
Step 7: Practice Exercise 28-2 .............................................................................................. 27
Step 8: Review Practice Exercise 28-2 ................................................................................ 29
Step 9: Injury and Poisoning (800-999) Part 2 ....................................................................... 29
  Open Wound (870-897) ..................................................................................................... 30
  Injury to Blood Vessels (900-904) ..................................................................................... 31
  Late Effects of Injuries, Poisonings, Toxic Effects, and Other External Causes (905-909) .......................................................... 31
  Superficial Injury (910-919) ............................................................................................. 31
  Contusion with Intact Skin Surface (920-924) ................................................................... 31
  Crushing Injury (925-929) ............................................................................................... 32
  Effects of Foreign Body Entering Through Orifice (930-939) ........................................ 32
  Burns (940-949) .............................................................................................................. 32
  Injury to Nerves and Spinal Cord (950-957) ....................................................................... 34

Lesson 28: ICD-9-CM Coding—
From Symptoms to Complications

Step 12: Certain Conditions Originating in the Perinatal Period (760-779) ......................... 25
  Maternal Causes of Perinatal Morbidity and Mortality (760-763) ..................................... 25
  Other Conditions Originating in the Perinatal Period (764-779) ...................................... 27
Step 13: Practice Exercise 27-4 ............................................................................................ 29
Step 14: Review Practice Exercise 27-4 .............................................................................. 30
Step 15: Lesson Summary ................................................................................................... 30
Step 16: Quiz 19 ................................................................................................................... 30

0105800LB03B-C4
Lesson 29: V Codes, E Codes and ICD-9-CM Coding Practicum

Step 1: Learning Objectives for Lesson 29........................................................................................................ 1
Step 2: Lesson Preview............................................................................................................................................... 1
Step 3: Supplementary Classification of Factors Influencing Health Status and Contact with Health Services (V01-V91)........................................................................................................ 2
  Persons with Potential Health Hazards Related to Communicable Diseases (V01-V06)........................................ 2
  Persons with Need for Isolation, Other Potential Health Hazards and Prophylactic Measures (V07-V09)................................................................. 3
  Persons with Potential Health Hazards Related to Personal and Family History (V10-V19)............................ 4
  Persons Encountering Health Services in Circumstances Related to Reproduction and Development (V20-V29)........................................................................................................ 4
  Persons with a Condition Influencing Their Health Status (V40-V49)........................................................................ 5
  Persons Encountering Health Services for Specific Procedures and Aftercare (V50-V59).................................... 5
  Persons Encountering Health Services in Other Circumstances (V60-V69).......................................................... 6
  Persons Without Reported Diagnosis Encountered During Examination and Investigation of Individuals and Populations (V70-V82)..................................................... 6
Step 4: Practice Exercise 29-1............................................................................................................................. 7
Step 5: Review Practice Exercise 29-1...................................................................................................................... 8
Step 6: Supplementary Classification of External Causes of Injury and Poisonings (E000-E999)..................... 9
Step 7: Practice Exercise 29-2............................................................................................................................. 10
Step 8: Review Practice Exercise 29-2................................................................................................................... 11
Step 9: Practicum Preview...................................................................................................................................... 11
Step 10: Guidelines for Assigning Codes ............................................................................................................ 11
  Steps for Assigning Diagnostic Codes.............................................................................................................. 11
  Sequencing ICD-9-CM Codes .......................................................................................................................... 12
# Lesson 30: The Future of Health Care

## Step 1: Learning Objectives for Lesson 30

## Step 2: Lesson Preview

## Step 3: Technology and Health Care: Today

## Step 4: Electronic Health Records

## Step 5: Access the Internet and the Web from a Computer

### The Computer Network

## Step 6: Electronic Coding

### Encoder Programs

## Step 7: Web-based Medical Records

## Step 8: Practice Exercise 30-1

## Step 9: Review Practice Exercise 30-1
## Answer Key

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson 22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson 23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson 24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson 26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson 27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson 28</td>
<td>Page</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Exercise 28-1</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Exercise 28-2</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Exercise 28-3</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 29</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Exercise 29-1</td>
<td>44</td>
</tr>
<tr>
<td>Practice Exercise 29-2</td>
<td>44</td>
</tr>
<tr>
<td>Practice Exercise 29-3</td>
<td>46</td>
</tr>
<tr>
<td>Practice Exercise 29-4</td>
<td>46</td>
</tr>
<tr>
<td>Practice Exercise 29-5</td>
<td>46</td>
</tr>
<tr>
<td>Practice Exercise 29-6</td>
<td>46</td>
</tr>
<tr>
<td>Practice Exercise 29-7</td>
<td>47</td>
</tr>
<tr>
<td>Practice Exercise 29-8</td>
<td>47</td>
</tr>
<tr>
<td>Practice Exercise 29-9</td>
<td>47</td>
</tr>
<tr>
<td>Practice Exercise 29-10</td>
<td>48</td>
</tr>
<tr>
<td>Practice Exercise 29-11</td>
<td>48</td>
</tr>
<tr>
<td>Practice Exercise 29-12</td>
<td>48</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lesson 30</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Exercise 30-1</td>
<td>49</td>
</tr>
</tbody>
</table>
Lesson 22
Resources for the Healthcare Professional

Step 1: Learning Objectives for Lesson 22

When you have completed the instruction in this lesson, you will be trained to do the following:

● Discuss professional organizations pertaining to the healthcare document specialist, and explain services they offer.

● Explain credentialing and how it relates to a healthcare document specialist.

● Identify helpful print and Internet publications that relate to the healthcare profession.

Step 2: Lesson Preview

Look how far you’ve come in this program! You began by learning about insurance, including the terminology specific to medical insurance. Then you studied medical terminology—discovering how to break long terms into simple parts that make sense. You wrapped up Course One by exploring medical ethics and legal issues, as well as the basics of medical records.

In Course Two, you learned the basics of anatomy. In addition, you became an “insider” as you discovered how to handle medical records, medical bills, EOBs and claim forms. You had hands-on practice with medical billing software. You’ll have the opportunity to use the medical billing software in Practice Exercises as you continue in this program. The more you use the software, the more confidence you’ll have.

Course Three focuses on the coding aspect of the healthcare document specialist’s career. Once you understand the organization of the ICD-9-CM, you’ll go through the manual chapter by chapter to enhance your knowledge.

However, in this first lesson in Course Three, we're going to step back from the “how-to” aspect of your training and take a look at your future career. There are many organizations and resources available to help you succeed. This lesson is chock full of information to help you find the guidance you need. We'll provide information on the professional organizations for healthcare document specialists. In addition, we'll discuss credentialing and certification options, and peruse resources that can help you stay abreast of changes in the healthcare field. In fact, you might be surprised at all the help that's out there for you!
Step 3: Associations for the Healthcare Professional

Over the years, several professional organizations have emerged to help healthcare professionals succeed. These organizations provide educational resources, community ties, job support and more. The three main associations are the American Academy of Professional Coders, the American Health Information Management Association and the Association for Healthcare Documentation Integrity. In the following sections, we'll take a look at these three associations, as well as others related to the healthcare profession.

American Academy of Professional Coders (AAPC)

The American Academy of Professional Coders (AAPC) was founded in 1988 as the American Academy of Procedural Coders. The goal of the original organization was to provide education, recognition and certification for physician-practice procedural coders. The AAPC also sought to raise the procedural coding standards.

The AAPC specializes in outpatient coding. Today, the AAPC represents coders who work for physicians, clinics, hospitals, outpatient facilities, payers and consulting firms. In all, the AAPC has more than 118,000 members worldwide. Membership is open to not just coders, but to other healthcare information professionals as well.

The AAPC offers the following coding-related services and programs:

- Coding certification exams and study guides
- Examination review classes
- Coding education
- An annual conference
- Local chapters
- AAPC publications

American Health Information Management Association (AHIMA)

The American Health Information Management Association (AHIMA) is a membership organization representing more than 64,000 healthcare professionals. It provides reliable and valid information for all areas of health management. AHIMA began in 1928 as the Association of Record Librarians of North America (ARLNA). The purpose of this organization was to “elevate the standards of clinical records in hospitals and other medical institutions.” This organization has undergone several name changes over the years. It became AHIMA in 1991. It is recognized as the leading source of “HIM knowledge,” a respected authority for rigorous professional certification, and one of the industry’s most active and influential advocates in Congress.¹
AHIMA offers a number of services to their members. Among them are:

- Coding certification exams
- Communities of Practice
- Careers Assist: Job Board
- Journal of AHIMA
- Perspectives in HIM

American Health Information Management Association (AHIMA)
233 N. Michigan Avenue, 21st Floor
Chicago, IL 60601-5809
(312) 223-1100 or (800) 335-5535
www.ahima.org

Association for Healthcare Documentation Integrity (AHDI)

The Association for Healthcare Documentation Integrity (AHDI), formerly the American Association for Medical Transcription, is the world’s largest professional society representing the clinical documentation sector whose purpose is to set and uphold standards for education and practice in the field of health data capture and documentation that ensures the highest level of accuracy, privacy, and security for the U.S. healthcare system in order to protect the public health, increase patient safety, and improve quality of care for healthcare consumers. According to AHDI, membership to this organization provides access to resources, information, events and services that will enhance their career.

AHDI offers the following services to their members:

- Medical Transcription certification exams
- Plexus magazine
- AHDI Webinars
- E-mentoring program

Association for Healthcare Documentation Integrity (AHDI)
4230 Kieran Avenue, Suite 130
Modesto, CA 95356
(800) 982-2182
www.ahdionline.org
American Medical Association

Since 1847, the American Medical Association (AMA) has had one mission: to promote the art and science of medicine and the betterment of public health. The AMA is an important professional organization in the world of health care. The AMA speaks out on important issues like patient rights and the health of the nation, and also created and maintains the CPT. The AMA Web site features a variety of valuable resources. Some of the AMA resources that you might find helpful include:

- CPT code information, including revisions
- CPT licensing
- Annual CPT educational symposium
- CPT Assistant coding journal
- Journal of the American Medical Association (JAMA)
- AMA Code of Medical Ethics

American Medical Association (AMA)
515 N. State Street
Chicago, IL 60654
(800) 621-8335
www.ama-assn.org

American Hospital Association

The American Hospital Association (AHA) serves hospitals, healthcare networks, patients and communities. The AHA represents the people and organizations in the development of national healthcare policy.

Some of the AMA resources you might find helpful include:

- Publications covering healthcare legislation
- Research on healthcare services and information management

American Hospital Association (AHA)
155 N. Wacker Drive
Chicago, IL 60606
(312) 422-3000 or (800) 424-4301
www.aha.org

Now, let’s look at the credentialing available for healthcare document specialists.
Step 4: Credentialing

You’ve probably heard people use the term credentials. Most likely, the word came up in a conversation about someone’s qualifications for a job. In a market where there are so many people offering similar services, credentials help people let customers know they are qualified to do a certain job. There are credentials for teachers, accountants, attorneys and more. There are also credentials for healthcare document specialists like you.

Credentialing is a growing trend; it validates your skills and knowledge and sometimes allows for job advancement opportunities. And pay increases! Whether or not you want to be credentialed is up to you. If you don’t want to do it now, you can take that leap sometime in the future.

National Healthcareer Association

The National Healthcareer Association (NHA), established in 1989, provides preparation and certification in various healthcare professions. The Certified Billing and Coding Specialist (CBCS) exam focuses on converting a medical procedure and diagnosis into specific codes for submitting a claim for reimbursement. Certification is not necessary for the medical billing profession; however, according to the NHA, benefits to obtaining the CBCS “may include more job opportunities, higher wages and increased job security.”

For more information about the CBCS exam through the NHA, visit its Web site at http://www.nhanow.com.

American Academy of Professional Coders

According to the American Academy of Professional Coders, more than 84,000 healthcare professionals around the country hold AAPC certifications. The AAPC offers certifications in medical coding, auditing, compliance and practice management. We’ll discuss the requirements of the medical coding certifications.

Certified Professional Coder (CPC)

The Certified Professional Coder (CPC) is the American Academy of Professional Coder’s main coding certification, with the focus on diagnostic and procedural codes for outpatient services. In addition to the codes, the CPC’s abilities include knowledge of coding rules and regulations including compliance and reimbursement.

Full CPC credentialing requires two years of coding experience. However, you can waive one year of experience with successful completion of this program! You’re almost halfway there.

Certified Professional Coder-Hospital (CPC-H)

Another credential offered by the AAPC is the Certified Professional Coder-Hospital (CPC-H). This credential focuses on outpatient facilities such as ambulatory surgical centers or hospital outpatient coding and billing departments. In addition to coding the diagnosis and procedures for outpatient settings, this exam also focuses on reimbursement procedures, such as fee updates and how to complete the UB-04.

Just like the regular CPC credential, a CPC-H should have at least two years of coding experience. You can also waive a year of that experience when you successfully complete your Healthcare Document Specialist program.
Certified Professional Coder-Payer (CPC-P)

The Certified Professional Coder-Payer (CPC-P) demonstrates a coder’s aptitude, proficiency and knowledge of coding guidelines and reimbursement methodologies for all types of services from the payer’s perspective, which is the insurance company. Claims reviewers, utilization management, auditors, benefits administrators, billing service, provider relations, contracting and customer service staff can each benefit their practices with the CPC-P credential.

The CPC-P certification exam certifies that the successful candidate has the knowledge and skills to adjudicate provider claims effectively. The exam tests the examinee’s basic knowledge of coding-related payer functions with emphasis on how those functions differ from provider coding. The relationship between coding and payment functions will be explored in depth.

The CPC-P exam consists of two parts, testing coding accuracy and reimbursement methodologies. The Medical Coding Concepts section tests the examinee’s understanding of medical terminology, anatomy and diagnostic and procedural coding concepts. The Reimbursement Methodologies section covers physician reimbursement, inpatient payment systems, outpatient payment systems, health insurance concepts and HIPAA.

AAPC Apprentice Certifications

Many new coders have the education and basic knowledge to pass the medical coding certification exams, but not the required amount of experience. This is common with entry-level coders. To help these people out, the AAPC has an apprentice status.

If you successfully pass the medical coding certification exam but don’t have the required two years of medical coding experience, you will be awarded the apprentice status, which is identified by an “A” on the certificate. Like other certifications, you will have to complete Continuing Education Units (CEUs). When you have completed the required work experience and submit documentation for that work, your credentials are upgraded to the full CPC, CPC-H or CPC-P!

American Health Information Management Association

AHIMA offers three coding certification exams: Certified Coding Associate (CCA), Certified Coding Specialist (CCS) and Certified Coding Specialist—Physician-based (CCS-P).

Certified Coding Associate (CCA)

The Certified Coding Associate (CCA) is an entry-level coding credential. If you are a new coder without much experience, you can immediately demonstrate your mastery of entry-level coding skills by earning the CCA. Earning a CCA also demonstrates a commitment to coding. It is a good starting point for coding credentials.

To take the CCA certification exam you must have a U.S. high school diploma or equivalent educational background. It is recommended that you have completed a formal coding training program, such as the one you’re completing! It is also recommended, although not required, that you have experience in hospital-inpatient and ambulatory-care medical coding. AHIMA notes that previous examination results indicate that persons who have three or more years of coding experience are more likely to pass the exam.

To download a free, comprehensive Certified Coding Associate Handbook, go to AHIMA’s Web site. This handbook also explains the CCA exam process in detail.
Certified Coding Specialist (CCS)
Certified Coding Specialists (CCS) are skilled professional coders with solid experience classifying medical data from patient records, generally from a hospital setting. A CCS must be an expert in the diagnostic and procedural coding systems. She must also be fluent in medical terminology, disease processes and pharmacology.

Examples of CCS level work include preparing coded data for Medicare and Medicaid recipients on the behalf of hospitals and medical providers. This data is also used by researchers and public health officials to monitor patterns and explore new interventions.

The CCS certification exam evaluates the individual’s proficiency in coding. On top of entry-level coding skills, the CCS exam covers some information management skills. You would consider getting a CCS certification after you have experience in coding inpatient records. Experience coding the hospital portion of ambulatory surgery and emergency department care is also helpful. AHIMA recommends at least three years of experience before taking the CCS exam.

Certified Coding Specialist—Physician-based (CCS-P)
Another type of credentialing offered by AHIMA is the Certified Coding Specialist—Physician-based (CCS-P). Those with a CCS-P credentialing have expertise in physician-based settings. This can include doctors’ offices, group practices, specialty centers and multi-specialty clinics. CCS-P coders have in-depth experience with diagnostic and procedural codes. They also are experts in health information documentation.

With the growth of managed care, the future looks good for this specialty. So if you develop solid experience and proficiency coding in a doctor’s office, clinic or similar setting, you might want to consider obtaining the CCS-P certification to attest to your ability.

Here is a final note regarding the AHIMA certifications. According to AHIMA, “the CCA exhibits coding competency in any setting, including both hospitals and physician practices. The CCS and CCS-P exams demonstrate mastery level skills in an area of specialty: hospital-based for CCSs and physician practice-based for CCS-Ps.”

Association of Healthcare Documentation Integrity
If you wish to become MT certified after completing your program, you can complete exams offered by AHDI. If you have less than two years of MT experience, you can sit for the Registered Medical Transcriptionist exam. Once you have a few years of experience, you may sit for the Certified Medical Transcriptionist exam. Let’s take a closer look at both certification options.

Registered Medical Transcriptionist (RMT)
The RMT exam is recommended for recent graduates of medical transcription education program, those with fewer than two years’ experience in acute care and those that are working in a single-specialty environment.

If you choose to take the AHDI RMT exam, you’ll be tested on medical transcription knowledge and your transcription performance. The medical transcription performance includes transcribing dictation, editing and proofreading.

Once you pass the RMT exam, your RMT certification is valid for three years. When the three years have passed, you will need to recredential by taking the exam again or by passing the AHDI Recredentialing Course.
Certified Medical Transcriptionist (CMT)

The Certified Medical Transcriptionist is another level of voluntary certification offered by AHDI. To qualify for the CMT exam, you should have at least two years of acute care medical transcription experience. Like the RMT exam, the CMT exam tests medical transcription knowledge and transcription performance. You should be able to transcribe dictation for multiple ESL dictators into many formats and report types. In addition, you should have experience transcribing the major specialties, including surgery dictation and some minor specialties.

Once you pass the CMT exam, your certification is valid for three years. When the three years have passed, you’ll gain recertification through paying a fee and earning a minimum of 30 continuing education credits in AHDI’s required categories.

For more information about RMT or CMT certification, visit www.ahdionline.org.

Step 5: Practice Exercise 22-1

Determine the term(s) to complete each sentence.

1. _____ are skilled professional coders with solid experience classifying medical data from patient records.

2. _____ is recognized as one of the industry’s most active and influential advocates in Congress.

3. The _____ exam focuses on converting a medical procedure and diagnosis into specific codes for submitting a claim for reimbursement.

4. The AMA speaks out on important issues like _____ and the health of the nation.

5. The _____ exam tests the student on diagnostic and procedural codes, compliance and reimbursement policies.

6. In addition to coding the diagnosis and procedures for outpatient settings, the _____ exam also focuses on reimbursement procedures, such as fee updates and how to complete the UB-04.

7. The goal of the _____ is to provide education, recognition and certification for physician-practice procedural coders.

8. _____ coders have in-depth experience with diagnostic and procedural codes. They also are experts in health information documentation.

9. To qualify for the _____ exam, you should have at least two years of acute care medical transcription experience.

10. The _____ exam tests you on MT knowledge and your transcription performance.
Step 6: Review Practice Exercise 22-1

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 7: Healthcare Resources

Whether you're just embarking on your healthcare career or are an experienced healthcare document specialist, you will need to be up-to-date on healthcare developments. You will always rely on resources to help you find information on healthcare issues. Why are resources so important? It is not humanly possible to remember every diagnostic or procedural code, claim or punctuation rule. Resources serve a number of functions:

- Reference books allow you to store the information you don't use every day.
- Resources can provide you with the information right now, when you need it.
- Resources serve as a valuable support system if you are working independently or don't otherwise have much contact with other people where you work.

The professional organizations you just learned about will be very helpful to you in your new career. Now, we'll provide some resources from these professional organizations and others! Consider them as a starting point from which to develop your own pool of coding resources. They will give you a good idea of what's available.

AAPC Publications

Member of the AAPC, receive various publications to keep up-to-date on healthcare trends. These publications include Coding Edge, EdgeBlast and BillingInsider.

- Coding Edge is a monthly print publication that is written by and for members of the AAPC. Articles include issues facing the coding industry and updates on emerging trends and concerns. Members of the AAPC can subscribe to the coding news magazine.

- EdgeBlast is a newsletter distributed by e-mail twice a month to AAPC members. It includes summaries and links to important articles.

- BillingInsider is an e-newsletter available to members and nonmembers. Topics relate to the billing side of the medical practice.

AHIMA Publications

AHIMA provides both online and in print publications relating to the healthcare field. These publications include the Journal of AHIMA and Perspectives in HIM. In addition, members have access to an online tool for healthcare professionals.

AHIMA's Communities of Practice (CoP) is an online tool that AHIMA members use to network, share, problem-solve and stay informed of the latest trends in HIM-related topics. This growing professional network provides answers, support and career advice using the latest technology.
The *Journal of AHIMA* is a monthly journal that includes both coding-specific and general health information management related articles. It also includes tips for on-the-job solutions and practical guidance on regulations, policies and procedures. This journal is available to nonmembers by subscription.

*Perspectives in Health Information Management* is a scholarly, peer-reviewed research journal that aims to advance health information management practice and encourage interdisciplinary collaboration between healthcare professionals and others in disciplines supporting the advancement of the management of health information. It’s an online journal that is free to members and nonmembers.

**AHIMA e-Newsletters**

AHIMA e-newsletters are primarily for members of AHIMA. You can find a complete listing of the e-newsletters on the AHIMA Web site.

- *Academic Advisor* is a quarterly e-newsletter for HIM educators.
- *CodeWrite* is a monthly e-newsletter containing coding, reimbursement and compliance information.
- Members receive *AHIMA Advantage* electronically six times each year. This publication includes healthcare and AHIMA news. In addition, members receive *AHIMA Advantage E-Alerts* weekly, which deliver news summaries on industry, AHIMA and government news related to healthcare. Members can view the most recent issue on the CoP.

**AHDl Publications**

The AHDl offers an online publication relating to the healthcare field. *Plexus* is a bimonthly member publication featuring articles, regular columnists and other contributed material focusing on medical science, education, technology, pharmacology, transcription styles and practices, instruction techniques and more!

**American Medical Association**

The AMA produces the *CPT Assistant*, the *Journal of the American Medical Association* and a slew of coding reference material, including express reference cards, specialty coding references and electronic data files of technical coding manuals.

The *CPT Assistant* is a monthly newsletter only available to AMA members. It provides detailed articles, commentaries and updates to keep your claims system running.

The *Journal of the American Medical Association (JAMA)* has been published continuously since 1883. It is an international peer-reviewed general medical journal published 48 times per year. Its objective includes publishing original, important, valid, peer-reviewed articles on a diverse range of medical topics.

**American Hospital Association**

The *Coding Clinic* is quarterly publication that provides official coding guidelines and advice. A subscription allows you to access past issues for updates about coding-specific conditions or procedures.
OptumInsight

OptumInsight, previously Ingenix, publishes many of the coding manuals. In addition, OptumInsight offers a comprehensive mix of coding, billing, reimbursement and compliance products in a wide array of formats and services. These include Web-based tools, books, desktop software and print and electronic updates.

Among the many publications that might be of particular interest to you as a healthcare document specialist are:

- **Coder's Dictionary.** This dictionary is written by coders for coders. It includes definitions for medical nomenclature, eponyms, new technology and acronyms.

- **DRG Expert.** The nation’s DRG information experts bring you this annual book organized by Major Diagnostic Category (MDC) for accurate assignment of DRGs and maintenance of the highest level of data quality. This book is for those who need to either accurately assign DRGs or verify DRG information.

- **Uniform Billing Expert.** This reference tool assists in managing the constant changes to Medicare billing and reimbursement. It provides information about UB-04 billing rules and requirements.

- **Outpatient Billing Expert.** This reference applies to hospital outpatient departments and free-standing ambulatory surgical centers. It provides guidance to improve reimbursement and reduce denied claims.

- **Coder's Desk Reference for Diagnoses.** This reference allows you to better understand the clinical meanings behind codes. It provides coding tips and includes coding scenarios to demonstrate the application of the codes.

- **Coder's Desk Reference for Procedures.** This manual helps you identify the differences between CPT codes that seem very similar.

You can access an online catalog of Optum/Ingenix products and services at www.optumcoding.com. You can also call 1-800-464-3649, option 1, to request a print catalog.

OptumInsight
2525 Lake Park Blvd.
Salt Lake City, UT 84120
(801) 464-3649
www.optumcoding.com
Just Coding

The Just Coding Web site provides answers to coding questions, access to coding articles and discussion groups, a free e-newsletter, job opportunities and a number of links to other helpful Web sites. Among the useful tools and links are the following:

- Continuing Education credits via articles, quizzes or Webcasts.
- Coding and reimbursement updates.
- Boot Camps, conferences and Webcasts.
- Coding guidance, practice questions and expert analysis.
- CPC practice exam and Job Board.

JustCoding.com
75 Sylvan Street
Suite A-101
Danvers, MA 01923
(800) 650 6787
www.justcoding.com

National Institute of Health

The National Institute of Health is the steward of medical and behavioral research for the United States. NIH funds scientific studies at universities and research institutions across the country. NIH is made up of 27 Institutes and Centers, each with a specific research agenda, often focusing on particular diseases or body systems.

If you visit the NIH Web site search for “medical coding,” you will find a wide range of resources. There are publications, reports and research documents available—all related to coding. In the field of medical coding, the impact of ongoing medical research is great. The coding manuals are constantly being updated and revised to reflect new information that becomes available in medicine. The NIH is one of the primary resources for the details of such research.

National Institute of Health (NIH)
9000 Rockville Pike
Bethesda, MD 20892
(301) 496-4000
www.nih.gov

Other Resources

A number of other companies and organizations provide a variety of healthcare professional resources. Here are a few that you might want to check out as you develop your network of resources.

For The Record

For The Record is published biweekly and provides reliable information on a range of health information issues. The subscription is free to members of the AACP and some members of AHIMA. The magazine is available in print, digital or both. For more information, visit the Web site at www.fortherecordmag.com or call (800) 278-4400.
Advance for Health Information Professionals

Advance for Health Information Professionals offers a free e-newsletter that provides an editorial advisory board, hands-on help and CCS prep information. You’ll also receive notices on free Advance Job Fairs and job postings. The Web site for this publication is http://health-information.advanceweb.com. To subscribe by phone, call (800) 355-1088.

MedicalCoding.net

MedicalCoding.net was founded in 2001. It is a subsidiary of Provistas, Inc. MedicalCoding.net presents a variety of medical coding, billing and compliance books, eBooks, data files, claims forms and software to complement Provistas’ educational and consulting programs. Provistas is focused on providing Medicare compliance solutions to hospital and physician-practice clients. You can also subscribe to e-mail news at the Web site www.medical-coding.net or call (888) 288-2043.

The Coding Institute

The Coding Institute is a national newsletter publishing company. This group offers a wide range of medical specialty newsletters, coding bulletins, audio conferences, video coding series, CDs, print transcripts and online discussion groups. Contact The Coding Institute for information about free, sample newsletters at (800) 508-2582 or www.codinginstitute.com.

RAmEX Ars Medica, Inc.

RAmEX Ars Medica, Inc. distributes medical multimedia materials for professionals, including healthcare document specialists. Resources include medical CD-ROMs, medical videos, medical books, medical journals, medical slides, medical audio tapes and other medical software covering a broad range of medical fields and topics. You can find out more about RAmEX Ars Medica products by visiting the Web site at www.ramex.com or calling (800) 633-9281.

Online Medical Dictionaries

If you have Internet access, perhaps you’ve discovered the handiness of online dictionaries. Many of them are even free! In particular, the medical dictionaries listed below can be an excellent source of information and support. Some of these Web sites include a variety of medical information and resources in addition to the dictionary. Take a few minutes to visit each Web site and bookmark them for future reference.

- www.online-medical-dictionary.org
- www.medical-dictionary.com
- www.medic8.com/MedicalDictionary.htm
- www.medterms.com
- www.medicinenet.com
- www.sciencekomm.at/advice/dict.html
Resources for the Medical Transcriptionist

There are also many resources available specifically for the medical transcriptionist. These resources include spellcheckers, line counting software and style references.

Medical Spellcheckers

- **Stedman’s marketed by Lippincott Williams & Wilkins** (800) 638-3030 www.lww.com
- **Dorland’s marketed by Harcourt Brace** (800) 545-2522 www.harcourt.com
- **Sylvan** (800) 235-9455 www.sylvansoft.com
- **MedPen** (800) 579-4300 www.medpen.net

Medical Reference Book Companies

- **W.B. Saunders, which is a division of Harcourt Brace Publishers** (800) 545-2522 www.harcourt.com
- **Lippincott Williams & Wilkins** (800) 527-5597 www.lww.com
- **Health Professions Institute** (209) 551-2112 www.hpisum.com
- **Association for Healthcare Documentation on Integrity (AHDI)** (800) 982-2182 www.ahdionline.org

Medical Reference Books

- **Lippincott Williams & Wilkins**
  - **Griffith’s 5 Minute Clinical Consult**—Used for medical diagnosis and treatment. Subjects are divided by disease. Each disease has general information regarding diagnosis, treatment, medication and follow-up.
  - **Diagnostic Procedure Handbook**—A technical book, which is divided according to medical specialty.
  - **Laboratory Test Handbook**—A technical book, which is divided according to major clinical laboratory disciplines.
  - **The Quick Look Drug Book**—A user-friendly book of drug names, which are alphabetized and categorized according to use. It lists brand names of generics, explains the use and gives dosages and dosage forms.
  - **Stedman’s Word Books**—Word books are available for the following medical specialties: Surgery, Cardiology, Pathology, Dermatology, Immunology, Nephrology, Radiology, Oncology, Ophthalmology, Neurosurgery and Psychiatry in addition to books for Obstetrics and Gynecology and other specialties. You can also find word books for Medical and Surgical Equipment, Orthopedic and Occupational Therapy.
W.B. Saunders/Division of Harcourt Brace Publishers

**Surgical, Medical, Ophthalmology and Pharmaceutical Word Books**—Includes thousands of words and medical terms.

**Medical Transcription Guide, Do's and Don’ts**—Includes basic rules of style as well as current trends and formats for medical transcriptionists.

**Medical Abbreviations and Eponyms**—Includes common acronyms and guidelines for transcribing eponymic terms.

**Surgical Instruments Pocket Guide**—Includes pictures of instruments and their use, varieties and alternative names.

Association for Healthcare Documentation Integrity (AHDI)

**The Book of Style for Medical Transcription**—Style reference book, which provides information on grammar, editing and format.

Health Professions Institute

**H&P—A Nonphysician's Guide to the Medical History and Physical Examination**—Gives information on what physicians are looking for during a History and Physical exam and explains commonly used words.

**Laboratory Medicine: Essentials of Anatomic and Clinical Pathology**—Can be used to help understand disease and is divided into different body systems.

**Current Medical Terminology**—Word and phrase book arranged alphabetically; an easy to-use resource that contains simple definitions.

Medical Reference Software

**Line Counting Software**

- **Sylvan**—Sylcount—11 (800) 235-9455
- **Lanier**—Medword (800) 648-6423

**Medical Transcription Productivity Software**

- **Sylvan**—Flash Forward (800) 235-9455
- **Textware Solutions**—Instant Text (800) 355-5251

Note: Various computer software programs do have character counting features; however, they may not be an accurate reflection of the total number of characters in the document. WordPerfect does not count the spaces in between the lines as characters; therefore, it gives you a lower character count than it should. Please refer to the tutorial or contact the dealer where the software was purchased to find out if you have this feature.
Miscellaneous Resources

The Independent Medical Transcriptionist, Rayve Productions
(800) 852-4890 www.rayveproductions.com or AOL: rayvepro@AOL.com

Gives information on how to start and successfully run an independent medical transcription business.

Gregg Reference Manual, Glencoe/Macmillian/McGraw-Hill Publisher
(800) 334-7344 www.glencoe.com

A comprehensive reference for both basic and specific information in English grammar, style and usage.

Pat Systems (800) 543-1911 www.transpaper.com

A resource for adhesive sheets of laser paper that can be used for transcription so that patient charts never need to be taken from the office.

Professional Health Care Systems (800) 445-5875

Another resource for adhesive sheets of laser paper.

Step 8: Practice Exercise 22-2

Identify the healthcare resource with the company or organization where you can find it.

1. BillingInsider
2. CPT Assistant
3. Coding Clinic
4. Coder’s Desk Reference for Diagnoses
5. Communities of Practice
6. Coder’s Desk Reference for Procedures
7. Coding Edge
8. Plexus

Step 9: Review Practice Exercise 22-2

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 10: Lesson Summary

You’ve probably heard the expression “the more you know, the more you’ll grow.” When it comes to the healthcare profession, that saying is exactly right. In this profession, you must keep up-to-date with coding regulations, medical advances and professional trends. The resources in this lesson are your Yellow Pages, grape vine and encyclopedia—all rolled into one. Whether you’re searching for information on the latest dictation style, coding changes or claims updates, these resources are a great place to start. As you explore these resources and network with other healthcare document specialists, you’ll no doubt find other sources of information that you like.

Don’t feel overwhelmed. There’s more information in these resources than anyone could read through. What’s important is that you know where to begin your search if you have any questions. You’ve learned a lot so far, so keep up the good work!

One final note: Web site addresses and phone numbers change frequently. The addresses and numbers listed in this lesson were current at the time of printing, but they may change in the future. You may want to keep a list of your favorite resources, and update the contact information regularly.

Endnotes

5 Certified Professional Coder-Payer (CPC-P). AAPC. Web. 28 June 2012.
7 Getting Started in AHIMA’s Communities of Practice (CoP). American Health Information Management Association. Web. 28 June 2012.
Great start to Course Three!

Healthcare resources will help you succeed in your career.

Get out your ICD-9-CM!

It’s time to learn about its history and organization.

Continue to Lesson 23.
Lesson 23
ICD-9-CM Coding Introduction

Step 1: Learning Objectives for Lesson 23

When you have completed the instruction in this lesson, you will be trained to do the following:

● Describe the history and development of the diagnostic coding system.
● Explain the role of medical coding and its uses.
● Compare and contrast the ICD-9-CM and ICD-10-CM coding systems.
● Explain how Volumes 1 and 2 of the ICD-9-CM are organized.
● Explain basic coding guidelines.
● Distinguish among the ICD-9-CM conventions.
● Describe ICD-9-CM terminology.
● Locate the appendices in the ICD-9-CM.
● Identify the steps to diagnostic coding.

Step 2: Lesson Preview

Are you wondering when you’ll get to code? Well, here you go! This lesson will introduce you to diagnostic coding.

Whenever a patient sees a doctor for a health-related problem, the patient is asking for a diagnosis. We’ve talked quite a bit about diagnoses in previous lessons, and you already know a bit about diagnosis codes. You also know that when a doctor makes a diagnosis, it is you, the healthcare document specialist, who codes it.

The diagnosis codes that you assign are then used to determine the medical necessity. This helps the payer, such as the insurance companies, to determine reimbursement for the provider’s services.

This lesson also will give you information on the appendices, chapters and sections of each volume of the ICD-9-CM. Perhaps one of the most important aspects of this lesson is that you will learn about the various ICD-9-CM conventions. These conventions are the accepted ways of doing things when it comes to medical coding. When you understand these conventions and how they are used, you will have no problem accurately assigning diagnostic codes in your work.
Step 3: History of the International Classification of Diseases

We spoke briefly of the *International Classification of Diseases* in a previous lesson. The history of the *ICD* dates back to the 1600s in England! The system came to the United States in the mid-1700s. This classification of diseases originally was used to track mortality statistics to determine how many people died of different diseases.

In the seventeenth century, the statistical study of diseases began with the work of John Graunt on the *London Bills of Mortality*. The Bills was initially a list of only the number of burials. Graunt added to the Bills, to include the cause of deaths. He tabulated and studied the data from the annual bills from 1629 through 1660 and published *Natural and Political Observations Made upon the Bills of Mortality* in 1662. This publication is considered one of the forerunners of today’s international mortality classifications.

In 1837, the General Register Office of England and Wales found its first medical statistician, William Farr. Farr labored to secure an improved classification, as well as international uniformity. In 1853, the first International Statistical Congress (ISC) asked Farr to prepare an internationally applicable, uniform classification of causes of death. Although this classification was never universally accepted, the general arrangement survived as the basis of the *International List of Causes of Death*.

The International Statistical Institute created a committee, chaired by Dr. Jacques Bertillon, to prepare a classification of causes of death. The report was presented in 1893, and the *Bertillon Classification of Causes of Death*, as it was first called, received general approval. Several countries adopted it at that point. Jesus E. Monjaras first used the classification in the Americas for the statistics of San Luis de Potosi, Mexico.
In 1900, the first international conference for the revision of the Bertillon or *International List of Causes of Death* convened. Representatives from 26 countries attended and adopted the first of the ICDs or *International Classification of Diseases*. It was determined that the classifications should be revised every 10 years; therefore, the succeeding conferences were held in 1909, 1920, 1929 and 1938, and a new version of the *ICD* was adopted at each.3

**The WHO**

The World Health Organization (WHO) is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.4 In 1946, the United Nations gave the responsibility of the *ICD* to the WHO, which issued the sixth and subsequent revisions in 1948, 1958 and 1967.

The *ICD* is the international standard diagnostic classification. It classifies diseases and other health problems recorded on many types of health and vital records, including death certificates and health records.5

**ICD-9-CM**


The *ICD-9-CM* consists of:

- Tabular List
- Alphabetic Index
- Procedure Alphabetic Index and Tabular List

The *Clinical Modification* expanded the number of diagnosis codes and developed a procedural coding system.
Step 4: Why Code?

Through the years, the number of people who go to the doctor has increased. This increase has occurred for several reasons:

- People live longer and require more health care.
- Technological advances offer more options for better health care.
- People have better access to health care than ever before.

Your role as the healthcare document specialist is to transcribe/edit the physician’s dictated medical record for all of these patients and translate the information into numeric (number codes) and alphanumeric (combined letter and number) codes, and then submit claims for reimbursement. The physician’s office uses this coded information for a number of purposes. A primary use of medical codes is to communicate to the insured the reason for a patient’s medical visit. Thus, the diagnosis code communicates to the insurance payer the reason the physician provided medical services for the patient.

Another use for medical coding is as a statistics-gathering tool for research, grants and financial analysis. Hospitals use coding to index hospital records according to diseases and operations. By indexing—or organizing—records this way, they consistently can store and retrieve data. Coding is useful for reporting medical diagnostic trends to agencies that track this information. For instance, the American Cancer Society can access accurate cancer statistics thanks to coding.

As you can see, the coding system is a common language that the medical community uses as a standard communications device. Using this coding system correctly is important. You know by now that if a code is used that does not match the services performed, the claim will be rejected. In addition, for government claims, such as to Medicaid or Medicare, the correct code is required by law.

Originally, medical coding was used to allow access to medical records for easy retrieval of information for medical research, education and administration. Today, coding is used to:

- Facilitate payment of medical services.
- Study patients’ use of healthcare facilities.
- Study the cost of health care.
- Research the quality of health care.
- Determine healthcare trends.
- Plan for future healthcare needs.
Step 5: ICD-10

After 30 years, the ICD-9 needs to be replaced. The terminology and classification of some conditions are outdated and/or obsolete. These outdated codes produce inaccurate and limited data. And, the limits of the categories result in an increasing lack of specificity. Finally, the ICD-9-CM hinders comparisons with international data. It’s clear that the ICD must be flexible enough to adjust for emerging diagnoses and procedures and exact enough to identify precise diagnoses and procedures.

In 1989, the WHO prepared the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10)*, which was released in 1994. The United Kingdom adopted it in 1995, followed by the Nordic countries of Denmark, Finland, Iceland, Norway and Sweden from 1994 through 1997. Each year, another country adopted the ICD-10: France (1997), Australia (1998), Belgium (1999), Germany (2000) and Canada (2001). On January 15, 2009, the Department of Health and Human Services (HHS) released the final rule for the implementation of the *International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM)* and the *International Classification of Diseases, 10th Revision, Procedural Classification System (ICD-10-PCS)*. The final rule established the upcoming ICD-10 (both CM and PCS) transition.


On April 17, 2012, the HHS released a notice to postpone the date of compliance until October 1, 2014.

Impact for Coders

How does this affect you? Is it a waste of time to learn coding from the ICD-9-CM? Absolutely not! Per U.S. government mandate, the ICD-9-CM will be used by all medical service providers up until midnight on September 30, 2014. The ICD-10-CM will be implemented on October 1, 2014. To make sure you have the information about the current industry standard, we will focus on discussing the ICD-9-CM in your program for the immediate future. Once you are familiar with the coding process with the ICD-9-CM, it’ll be a smooth transition to the ICD-10-CM. You can get reference material in the format of an ICD-10-CM supplement available for purchase online through our bookstore. This supplement is optional and is not a required part of your program.
## Step 6: ICD-9-CM vs. ICD-10-CM

Let’s briefly review the two different code sets and compare them.

<table>
<thead>
<tr>
<th>ICD-9-CM</th>
<th>ICD-10-CM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Codes are 3 to 5 characters in length</td>
<td>Codes are 3 to 7 characters in length</td>
</tr>
<tr>
<td>Approximately 15,000 codes</td>
<td>Approximately 68,000 codes</td>
</tr>
<tr>
<td>First digit may be alpha (E or V) or numeric; digits 2 to 5 are numeric</td>
<td>Digit 1 is alpha; digits 2 through 7 are alpha or numeric</td>
</tr>
<tr>
<td>Limited space for new codes</td>
<td>Flexible for adding new codes</td>
</tr>
<tr>
<td>Lacks details</td>
<td>Very specific</td>
</tr>
<tr>
<td>Lacks laterality, which means left, right, or both sides is not defined</td>
<td>Has laterality (For example, the ICD-10-CM identifies which arm, such as right, left or both, the patient broke.)</td>
</tr>
<tr>
<td>Difficult to analyze data due to non-specific codes</td>
<td>Specificity improves coding accuracy and depth of data for analysis</td>
</tr>
<tr>
<td>Codes are non-specific and do not adequately define diagnoses needed for medical research</td>
<td>Detail improves the accuracy of data used in medical research</td>
</tr>
<tr>
<td>Does not support the ability to share data because it is not used in other countries</td>
<td>Supports interoperability and the exchange of healthcare data among other countries and the United States</td>
</tr>
</tbody>
</table>

Now that you understand the need for the ICD-9-CM update, let’s pause for a quick review.

## Step 7: Practice Exercise 23-1

Choose the best answer from the choices provided.

1. The ICD originally was used to track _____.
   - a. new diseases
   - b. mortality statistics
   - c. clinical diagnoses
   - d. population statistics

Choose the best answer from the choices provided.
2. **The Bertillon Classification of Causes of Death** was first used in the Americas in which country?
   a. United States
   b. Canada
   c. Mexico
   d. England

3. **In 1946, the United Nations gave the responsibility for the ICD to the** ____.
   a. World Health Organization
   b. General Register Office of England and Wales
   c. International Statistical Institute
   d. International Statistical Congress

4. **The United States adopted the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)**, is based on the ICD-9, in ____.
   a. 1946
   b. 1977
   c. 1967
   d. 1979

5. **The ICD-9-CM consists of a(n)** ____.
   a. tabular list
   b. alphabetical index and procedural index
   c. procedure index and tabular list
   d. tabular list, alphabetical index and procedure alphabetic index and tabular list

Determine the correct answer to complete each sentence.

6. **A primary use of medical codes is to** _____ to the insured the reason for a patient’s medical visit.

7. **Medical coding is a** _____ for research, grants and financial analysis.

8. **The ICD-9-CM outdated codes produce** _____.

---

**Step 8: Review Practice Exercise 23-1**

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 9: Organization of Volume 2, Alphabetic Index to Diseases ICD-9-CM

Before you really can begin coding, you need to understand the format and organization of the ICD-9-CM manual, Volumes 1 and 2. The manual itself is available from a number of different sources and publishers. Each publication presents the information in the ICD-9-CM manual in a slightly different format. For our purposes, all references to the ICD-9-CM manual, general arrangement and specific examples used are based on Ingenix, Inc.’s 2013 Professional ICD-9-CM for Physicians, Volumes 1 & 2 © 2012.

You may see an ICD-9-CM manual that contains three volumes, but, in this program, we will use only Volumes 1 and 2. You will not use Volume 3 because it is used by hospitals for coding of inpatient procedures. **Inpatients** are those people admitted to a hospital or clinic who require at least a 24-hour stay for treatment. **Outpatients** receive treatment but do not necessarily need to stay for a 24-hour period at a medical facility.

When you begin your search for diagnostic codes in the ICD-9-CM, you first look in the Alphabetic Index to Diseases, or Volume 2 of the ICD-9-CM. It is located first in the manual but is called Volume 2. Confusing, isn’t it? The ICD-9-CM originally was organized with Volume 1 before Volume 2, but medical coders found they always started their search in Volume 2 to locate codes. So, Volume 2 is presented first to make the manual user friendly.

Volume 2 is divided into three sections. Each section lists topics with a title and a description of the information that will be covered. The following are the names of these three sections and a brief description of each section’s contents:

- **Section 1—Index to Diseases**—An alphabetical list of diseases with the corresponding diagnostic codes.

- **Section 2—Table of Drugs and Chemicals**—An alphabetical table listing substances to identify poisoning and external causes of adverse effects of drugs and other chemical substances.

- **Section 3—Index to External Causes**—An alphabetical list of external causes of injury and poisoning.

Think of this lesson as your guide to understanding the ICD-9-CM. Right now, take time to locate these sections in Volume 2 of your ICD-9-CM coding manual. As you become familiar with your manual, coding will get easier and become more fun!
Main Terms

The first important skill to develop in medical coding is the ability to identify main terms for the diagnosis in a medical statement. A medical statement is information a provider documents in a patient’s medical record, such as, “The patient is diagnosed with arm pain.” You assign codes for the patient’s chief complaint or symptoms when there is no other definitive diagnosis or cause listed for the condition. When you code a record that contains two or more equal diagnoses, the principal or primary diagnosis is the one for which the main treatment was given.

Main terms appear in boldface type in Volume 2 of the ICD-9-CM and are flush with the left margin of each column for easy reference. Main terms represent items such as the following:

- Diseases – for example: influenza, bronchitis
- Conditions – for example: fatigue, fracture, injury, complication
- Nouns – for example: disease, disturbance, syndrome
- Adjectives – for example: double, large, kink

Anatomical sites, which are locations on the body, are not used for main terms. For example, you will find bronchial asthma under the disease term asthma, not under the anatomical term bronchial. When you look up the term asthma in the Alphabetic Index of Diseases—or Volume 2—the first entry you’ll find for the main term is as follows:

<table>
<thead>
<tr>
<th>Asthma, asthmatic (bronchial) (catarrh) (spasmodic)</th>
<th>493.9</th>
</tr>
</thead>
</table>

The terms you see in parentheses after the word asthmatic are called nonessential modifiers. We will discuss nonessential modifiers later when we talk about the punctuation used in the ICD-9-CM.

Let’s practice identifying main terms. Try coding the statement, “The patient is diagnosed with abdominal pain.” Begin by asking yourself, “What did the doctor document as being wrong with the patient?” Well, you know that the patient has abdominal pain. Now, where do you begin your search—abdominal or pain? You know that main terms in the ICD-9-CM are not listed under anatomical sites, so you can rule out looking under the term abdomen. Pain is a condition, so you would look there first. Following is an example of an entry from the Alphabetic Index to Diseases in the ICD-9-CM. You can see how the main term pain is listed.

| main term—Pain(s) (see also Painful) 780.96 |
|---|---|
| abdominal 789.0 ✔
| acute 338.19
| due to trauma 338.11
| postoperative 338.18
| post-thoracotomy 338.12
| adnexa (uteri) 625.9
| alimentary, due to vascular insufficiency 557.9

nonessential modifiers
Subterms

In the example, the term abdominal describes where the pain is located in the body. Locating abdominal is the second step in determining what code to use. The first step was to identify pain as the main term. In this example, abdominal is a subterm. All terms listed below the main terms are called subterms. Subterms are modifiers of main terms and always are indented two spaces to the right below main terms. Each subterm has its own line, and all subterms are arranged in alphabetical order. Subterms describe the following three categories:

- Site—location on the body
- Cause—reason
- Clinical type—form

Look at the following examples:

The diagnosis is: viral infection

The main term is: infection

The subterm is: viral

The main term, infection, is a condition. The subterm, viral, is the clinical type or form of infection. Let's try one more:

The diagnosis is: Addison's Disease

The main term is: Disease

The subterm is: Addison's

The main term, disease, is a noun—a person, place or thing. The subterm, Addison's, tells you the type of disease.

Other Important Terms

Carryover lines appear in the manual because there is a limit to the number of words that can fit on a single line of print in the Index. In entries that don't fit on a single line, the extra words carry over to the next line and usually are indented an additional four spaces. The following demonstrates a carryover line:

Rubella (German measles) 056.9 [main term]
complicating pregnancy, childbirth or puerperium 647.5 [carryover line]

Let's take a moment to talk about nonessential modifiers. Nonessential modifiers follow a main term or subterm in parentheses. However, when you are dealing with nonessential modifiers, the presence or absence of the information in parentheses has no bearing on your selecting the correct code. In other words, the information does not necessarily need to be documented in order for you to determine which code is correct for the diagnosis. An example of a main term with nonessential modifiers follows:

Pneumonia (acute) (Alpenstich) (benign) (bilateral) (brain) (cerebral)
Do you remember talking about eponyms in the medical terminology lessons? **Eponyms** are diseases or operations named for persons. The main terms for eponyms are found in the *Index to Diseases* under the eponym itself or under the main term, such as **Disease**, **Syndrome** and **Disorder**. For example, if you look in the index under the eponym **Alzheimer’s disease**, you find the following:

Alzheimer’s  
disease or sclerosis 331.0

If you look under the main term **Disease**, you’ll find:

**Disease, diseased**  
Alzheimer’s—see Alzheimer’s

In this case, you would go back to **Alzheimer’s** in the *Index to Diseases* to locate code 331.0. We will talk about **see** and **see also** later in this lesson.

Terms not listed in the *Tabular List*, or Volume 1 of the *ICD-9-CM*, occasionally are provided only in Volume 2, the *Alphabetic Index to Diseases*. In these cases, only similar terms are included in the *Tabular List*, and you should follow the *Alphabetic Index to Diseases* for the correct code. An example of a term listed in Volume 1, the *Tabular List* but listed differently in Volume 2, Section 1, *Index to Diseases*, follows:

780.79 Other malaise and fatigue  
Asthenia NOS  
Lethargy  
Postviral (asthenic) syndrome  
Tiredness

However, in Volume 2, *Index to Diseases*, you find this term:

**Listlessness** 780.79

Although listlessness is assigned a code, 780.79, in Volume 2, Section 1, the *Index to Diseases*, that term is not listed in Volume 1, the *Tabular List* description under the same code. In this case, you should note that similar terms were shown in the *Tabular List*; however, trust the guidance of the *Index to Diseases* and use the code indicated there. You will find that the *Tabular List* may not have the exact description as the medical record. It is up to you, the healthcare document specialist, to decide which code is most specific for a diagnosis. Don’t worry, your upcoming lessons will prepare you to do that, but remember to trust the guidance that the *Index to Diseases* provides.
Step 10: Organization of Volume 1, Tabular List

Volume 1 of the ICD-9-CM is referred to as the Tabular List and is presented second in the manual. The Tabular List is a numerical index of specific diagnosis codes. This list is cross-referenced with diseases and injuries according to the anatomical system affected and/or the etiology, which is the cause of the disorder. Volume 1 is divided into seven parts: three sections and four appendices. The three sections consist of codes 001-999.9, the V codes and the E codes. Following those are the four appendices which we will discuss later in this lesson. Always be familiar with the organization of the coding manual you are using because the format will vary according to publishers.

The first section of Volume 1 contains 17 chapters. Each chapter contains the following subject matter and the designated range of related ICD-9-CM codes in parentheses:

- Chapter 1 Infectious and Parasitic Diseases (001–139)
- Chapter 2 Neoplasms (140–239)
- Chapter 3 Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders (240–279)
- Chapter 4 Diseases of the Blood and Blood-Forming Organs (280–289)
- Chapter 5 Mental, Behavioral and Neurodevelopmental Disorders (290–319)
- Chapter 6 Diseases of the Nervous System and Sense Organs (320–389)
- Chapter 7 Diseases of the Circulatory System (390–459)
- Chapter 8 Diseases of the Respiratory System (460–519)
- Chapter 9 Diseases of the Digestive System (520–579)
- Chapter 10 Diseases of the Genitourinary System (580–629)
- Chapter 11 Complications of Pregnancy, Childbirth, and the Puerperium (630–679)
- Chapter 12 Diseases of the Skin and Subcutaneous Tissue (680–709)
- Chapter 13 Diseases of the Musculoskeletal System and Connective Tissue (710–739)
- Chapter 14 Congenital Anomalies (740–759)
- Chapter 15 Certain Conditions Originating in the Perinatal Period (760–779)
- Chapter 16 Symptoms, Signs, and Ill-Defined Conditions (780–799)
- Chapter 17 Injury and Poisoning (800–999)

Each of the 17 chapters in Volume 1, Tabular List, contains the following subdivisions:

- **Sections**—Sections, are groups of three-digit categories that represent a single disease entity or a group of similar or closely related conditions. For example, in Volume 1 you’ll find that codes 001-009 represent the category of Intestinal Infectious Diseases.

- **Categories**—Within sections, each three-digit category represents a single disease entity or a group of similar or closely related conditions. As you look at Intestinal Infectious Diseases (001-009) in Volume 1, you’ll see categories such as 003 for Other salmonella infections and 004 for Shigellosis.
● **Subcategories**—Within categories, each fourth-digit subcategory provides specific information regarding the cause of death or etiology, site, or **manifestation**—the signs or symptoms of an illness. You cannot assign a three-digit code if a category has fourth digits available. You must assign the most specific code possible—the subcategory if it is available. For example, you would use the four-digit code 003.1 for Salmonella septicemia in Volume 1, the *Tabular List*.

● **Fifth-Digit Subclassifications**—A fourth-digit subcategory sometimes is expanded to the fifth-digit level to provide more specific information. These **fifth-digit subclassifications**, appear in four locations: at the beginning of a chapter, at the beginning of a section, at the beginning of a three-digit category, or in a four-digit subcategory. The fifth-digit subclassification provides very specific information, such as the site of lymph nodes involved in a diagnosis, and you must assign it if it is available. In Volume 1 you see a fifth-digit code 003.21 for Salmonella meningitis.

● **Residual Subcategories**—These subcategories are codes with titles of *Other* and *Unspecified*. **Residual subcategories** classify conditions that are not assigned a separate subcategory. This ensures that a code can be assigned for every disease. Residual subcategories titled *Other* often have an 8 as the fourth digit; for example, **003.8 Other specified salmonella infections**. Residual subcategories titled *Unspecified* usually are assigned the fourth digit of 9, for example, **003.9 Salmonella infection, unspecified**.

Two supplementary classifications are provided in addition to the main classification for diseases and injuries. These classifications contain alphanumeric codes, or letters and numbers, whereas the other classifications only are numeric. These **supplementary classifications** can be V codes or E codes.

Now let’s pause to reinforce your understanding of the organization of the *ICD-9-CM*.

### Step 11: Practice Exercise 23-2

Choose the best answer from the choices provided.

1. **The ICD-9-CM for Physicians manual is divided into _____ volumes.**
   a. 12
   b. two
   c. three
   d. 10

2. **The ICD-9-CM for Physicians manual lists _____ codes.**
   a. fundamental
   b. procedural
   c. treatment
   d. diagnostic
3. Main terms appear in _____ type.
   a. italicized  
   b. boldface  
   c. underlined  
   d. Times Roman

4. Information in parentheses following a main term is called a(n) _____, and it has no effect on selecting the correct code.
   a. nonessential modifier  
   b. essential modifier  
   c. tabular reference  
   d. alphabetic code

5. The _____ uses a numerical index cross-referenced with diseases and injuries according to the anatomical system affected and/or etiology.
   a. Appendix  
   b. Glossary  
   c. Alphabetic Index  
   d. Tabular List

6. A healthcare document specialist must assign the most _____ code possible—a subcategory, if it is available.
   a. obvious  
   b. basic  
   c. specific  
   d. likely

7. Supplementary classifications might be _____ codes.
   a. V or E  
   b. J or K  
   c. V or J  
   d. E or K

8. _____ classifications ensure that there is always a code for every disease.
   a. Late effect  
   b. Residual  
   c. Supplementary  
   d. Rudimentary
Step 12: Review Practice Exercise 23-2

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 13: Introduction to Coding Guidelines

Near the beginning of your ICD-9-CM manual is a section titled Coding Guidelines: ICD-9-CM Official Guidelines for Coding and Reporting. This section contains coding guidelines, conventions and chapter-specific guidelines. Take a few moments to find this section in your manual. Remember that there’s no need to memorize the guidelines—they will always be available to you in your manual. However, it’s important to know where to find this information and how to use this resource. When you begin coding in upcoming lessons, you will need to refer to these guidelines for additional information regarding certain diseases and how to code them.

The Coding Guidelines section begins with a Table of Contents that divides the material into four parts. For now, focus on Section IV of the Coding Guidelines, Diagnostic Coding and Reporting Guidelines for Outpatient Services. This section includes specific guidelines for coding outpatient services. (Keep in mind that outpatients are patients who do not stay overnight in a healthcare facility.)

The ICD-9-CM manual is printed each year before the guidelines are updated. Therefore, the manual you have covers the previous year’s guidelines. For instance, if you have the ICD-9-CM 2013 edition, you’ll find the 2012 guidelines.

This time gap means you must always be on the lookout for updated information as it becomes available. The coding resources you just learned about will help you out!

Who Develops Diagnostic Coding Guidelines?

A team of four organizations is actively involved with in-depth coding principles and practices. The groups include the Centers for Medicare and Medicaid Services, or CMS; the National Center for Health Statistics; the American Health Information Management Association, or AHIMA; and the American Hospital Association, or AHA. These organizations cooperatively developed and approved the “Diagnostic Coding and Reporting Guidelines for Outpatient Services,” which is Section IV in your ICD-9-CM manual. The Editorial Advisory Board of the AHA Coding Clinic publishes this document.

As you continue to become more familiar with your ICD-9-CM manual, you will find references to the AHA in the Tabular List, or Volume 1, under many code descriptions. Take a look at this example:

275.4 Disorders of calcium metabolism
AHA: 4Q, ’97, 33

AHA: 4Q, ’97, 33 refers you to the AHA Coding Clinic for ICD-9-CM a publication that discusses official advice concerning coding topics. It is a quarterly newsletter published by the American Hospital Association. As a student, you do not need to have access to this publication to complete this program, but we do want you to be aware of these references.

Now let’s get familiar with the cross-reference terms you may encounter.
Cross-reference Terms

Volume 2, the Alphabetic Index to Diseases uses cross-reference terms to instruct you to look in another place before you assign a code. These cross references provide possible modifiers for a term or its synonyms. Follow the cross references to the correct code when you don’t find the diagnosis under the first term you locate. The following three types of cross reference terms are used: see, see also and the see category. Before you look more closely at each term and its use, be advised that you will be provided with examples to assist in understanding the ICD-9-CM’s meaning. You might not have enough information to determine exact coding.

See

The see cross reference points you to another term. You will follow the see cross reference to ensure that you assign the correct code to a diagnosis. The following example from Volume 2 shows you how to use the see cross reference:

**Roentgen ray, adverse effect**—see Effect, adverse, x-ray

The see cross reference instructs you to go to **Effect, adverse** and go down the list of subterms until you come to **x-ray**. This is what you will find:

- **Effect, adverse** NEC
- 
- 
- x-rays NEC 990
  
  dermatitis or eczema 692.82

See Also

See also indicates that additional information about the term and code is available under the referenced term in another place in the Alphabetic Index to Diseases. The see also cross reference gives you an additional diagnosis and code when the main term or subterm is insufficient. The additional information in the see also cross reference helps you select the correct code, so follow this instruction to ensure coding accuracy. Here’s an example from Volume 2 that includes the see also cross reference:

**Tuberculoma** — see also **Tuberculosis**

- brain (any part) 013.2 ✓
- meninges (cerebral) (spinal) 013.1 ✓
- spinal cord 013.4 ✓

When you go to the **Tuberculosis** main term, you will find a very long list of subterms to review. You must determine whether any of them is appropriate to include based on the diagnosis with which you are working.

It’s also important to use multiple codes to identify all components of a diagnosis when a single code does not fully describe a given condition. The see also cross reference helps you do this. However, medical record documentation must mention the presence of all the elements of any code you use. Always ask the physician involved if you are unsure about assigning multiple codes. We will discuss multiple codes further in a moment.
See Category

The *see category* cross reference directs you to an additional three-digit category in Volume 1, *Tabular List*. If the *see category* is included with a term, you cannot assign the correct code unless you follow this instruction and read the applicable notes in Volume 1. For example, in Volume 2 under the main term *Hemiplegia* with a code of 342.9, the subterm thrombotic (current), late effect, includes a *see category* directing you to *Late effect(s) (of) cerebrovascular disease*:

```
Hemiplegia 342.9
```

```
• thrombotic (current) (see also Thrombosis, brain) 434.0
  late effect – see Late effect(s) (of) cerebrovascular disease
```

*General adjectives*, or *descriptive words*, such as acute and hereditary, appear as main terms, usually with a cross reference to *see conditions* or *see also*. In addition, if anatomic sites such as arm or neck appear as main terms, there will be a cross reference to *see conditions* or *see also*.

Includes and Excludes

The *ICD-9-CM* manual uses [INCLUDES] and [EXCLUDES] instructional notes to help you assign diagnostic codes at the highest level.

The [INCLUDES] box appears immediately after a three-digit code's title to provide additional information regarding the category's contents. The *Tabular List* uses inclusion notes to define a category in greater detail. Look at the following example from Volume 1:

```
633    Ectopic pregnancy
```

```
[INCLUDES] ruptured ectopic pregnancy
```

The [EXCLUDES] box appears in a listing when terms are not to be coded under the referenced term; such terms are listed somewhere else. A code reference is provided in parentheses directing you to the correct term or area. The *Tabular List* uses exclusion notes, and you can see them easily because [EXCLUDES] is printed in reverse type with a box around it to define the category in greater detail. Look at the following example from Volume 1:

```
711    Arthropathy associated with infections
```

```
• rheumatic fever (390)
```
Notes

Notes, which give coding instructions, appear in Volume 1, the Tabular List and in Volume 2, the Alphabetic Index to Diseases of the ICD-9-CM manual. The length of the notes varies. Depending on where the notes are located, their appearance also varies. When notes are in Volume 2, they are boxed and italicized. Notes in Volume 1 are located at various levels of the classification system. The following examples show some notes from different parts of the ICD-9-CM manual and how these notes instruct you.

This note from Volume 2 gives you additional coding instructions and defines terms:

**Injury 959.9**

*Note—For abrasion, insect bite (nonvenomous), blister, or scratch, see Injury, superficial.*

For laceration, traumatic rupture, tear, or penetrating wound of internal organs, such as heart, lung, liver, kidney, pelvic organs, whether or not accompanied by open wound in the same region, see Injury, internal.

For nerve injury, see Injury, nerve.

For late effect of injuries classifiable to 850-854, 860-869, 900-919, 950-959, see Late, effect, injury, by type.

This note from Volume 1 instructs you to assign a fifth digit because subclassification categories are available:

**831 Dislocation of shoulder**

*EXCLUDES* sternoclavicular joint (839.61, 839.71)

sternum (839.61, 839.71)

The following fifth-digit subclassification is for use with category 831:

0 shoulder, unspecified
   Humerus NOS
1 anterior dislocation of humerus
2 posterior dislocation of humerus
3 inferior dislocation of humerus
4 acromioclavicular (joint)
   Clavicle
9 other
   Scapula

Multiple Coding

Multiple coding simply means using more than one code to identify a diagnosis as accurately as possible. Several instructional phrases indicate that you are required to use multiple codes. The following examples instruct you in multiple coding:

**Use additional code if desired**—Volume 1, the Tabular List includes this notation, which instructs you to use an additional code to provide a more complete picture of the diagnosis or procedure. You should ignore the words if desired—use additional codes when this multiple coding note is provided as long as the documentation supports the code.
When you see an instruction at the beginning of a chapter, that instruction applies to all the codes in the chapter. Instructions also may appear at the beginning of a section or a category. In the following example from Volume 1, the notation instructs you to identify other aspects of the disease, such as manifestation, cause, associated condition and nature of the condition.

358.2 Toxic myoneural disorders
Use additional E code to identify toxic agent

Code first underlying disease—This instruction identifies diagnoses that are not primary (or principal) and are incomplete when they are used alone. Only Volume 1, the Tabular List, uses this instruction. First, record the underlying disease, which often is the second line in the code. Then record the primary disease or first line in the code. Look at the following example from Volume 1:

595.4 Cystitis in diseases classified elsewhere
Code first underlying disease, as:
  - actinomycosis (039.8)
  - amebiasis (006.8)
  - bilharziasis (120.0–120.9)
  - Echinococcus infestation (122.3, 122.6)

In this example, if amebiasis is documented as the underlying disease, you first would code amebiasis (006.8), and then Cystitis in diseases classified elsewhere 595.4. You will code: 006.8 595.4

Connecting Words
Connecting words are words that connect main terms with subterms. These words connect the terms and subterms to show that there is a relationship between the main term and an associated condition or etiology.
The following words are examples of some connecting words used in Volume 2, the Alphabetic Index to Diseases:

<table>
<thead>
<tr>
<th>associated with</th>
<th>during</th>
<th>secondary to</th>
</tr>
</thead>
<tbody>
<tr>
<td>complicated (by)</td>
<td>following</td>
<td>with</td>
</tr>
<tr>
<td>due to</td>
<td>in</td>
<td>with mention of</td>
</tr>
<tr>
<td>of</td>
<td>without</td>
<td></td>
</tr>
</tbody>
</table>

In the example that follows, the connecting terms are italicized to demonstrate their use:

883 Open wound of finger(s)
  INCLUDES fingernail
  thumb (nail)
883.0 Without mention of complication
883.1 Complicated
883.2 With tendon involvement
Abbreviations

The *ICD-9-CM* manual frequently uses the following two abbreviations with which you need to be familiar:

- **NEC**—NEC means **not elsewhere classifiable** in the *ICD-9-CM* manual. This abbreviation is to be used only when there is not enough information available to code the term more specifically, even when a diagnostic statement was very specific; and only with ill-defined terms included in Volume 1, the *Tabular List*, to warn you that specified forms of the condition are classified differently. In such cases, use NEC codes only if more precise information is not available.

- **NOS**—NOS means **not otherwise specified**. Use NOS codes only when the diagnosis statement does not provide enough information.

These abbreviations are for your reference only. You will not record them with the assigned code.

Symbols

Symbols often are used in the *ICD-9-CM* manual to identify a code number that is new since the previous edition of the manual. Symbols also might be used to indicate a change in a code's description. Diagnostic codes that require a fourth or fifth digit are marked with a symbol. Some codes are marked to indicate a footnote that is applicable to all subdivisions in the code.

We will be discussing, in detail, some of the symbols. In the front of your *ICD-9-CM* manual, you will find more information about these symbols under the heading *Additional Conventions, Symbols and Notations*. These symbols, just like the abbreviations, are for your reference only and will not be recorded with the assigned code.

Punctuation

The *ICD-9-CM* manual uses the following punctuation symbols:

- **Parentheses** ( )

  Parentheses enclose supplementary information; this information consists of words whose presence or absence in the statement of a disease does not affect the code number. For example, in Volume 2, *Alphabetic Index to Diseases*, erythroblastic anemia is included as supplemental information, but the terms have no bearing on the code used:

  Dameshek’s syndrome *(erythroblastic anemia)* 282.49

- **Square Brackets** [ ]

  Brackets enclose synonyms, alternative wordings or explanatory phrases. For example from Volume 1, the *Tabular List*, the bracketed information—*[and kyphoscoliosis]*—is included for clarification:

  737.3  **Kyphoscoliosis and scoliosis**

  DEF: Kyphoscoliosis: backward and lateral curvature of the spinal column; it is found in vertebral osteochondrosis.

  DEF: Scoliosis: an abnormal deviation of the spine to the left or right of midline.

  737.30 **Scoliosis** [and kyphoscoliosis], idiopathic
Slanted Brackets [ ]

Slanted brackets, or brackets that are italicized, appear in Volume 2, Alphabetic Index to Diseases, to indicate that another code is required in addition to the first code listed. You must record both codes in the order they are given in the volume, but you will not include the slanted brackets when recording the code. For example, in Volume 2, if the diagnosis is diphtheritic epididymitis, you must code both the 032.89 and the 604.91—in that order:

**Epididymitis** (nonvenereal) 604.90
with abscess 604.0

\[ \text{diphtheritic} \ 032.89 \ [604.91] \]

You will code: 032.89 604.91

Colon :

Volume 1, the Tabular List, uses a colon after an incomplete term that requires an adjective, or descriptor. For example, in Volume 1, if hypostatic is included in the diagnosis without either of the terms below it, hypostatic would not be listed under 514. See the example below:

514 Pulmonary congestion and hypostasis
    Hypostatic:
    bronchopneumonia
    pneumonia

**Hypostatic** is a descriptor meaning congestion of blood in a part of the body due to impaired circulation. Since hypostatic is an adjective (descriptor), it must be followed by a noun identifying the etiology, or cause of the condition. Note: If the pneumonia were not hypostatic, it would be coded differently.

Braces }

Braces enclose a series of terms, each of which is changed by the statement to the right of the brace. For example, in Volume 1:

755.2 Reduction deformities of upper limb
    755.20 Unspecified reduction deformity of upper limb
    Ectromelia NOS
    Hemimelia NOS

✦ A bullet indicates a new code.

▲ A triangle in the Tabular List indicates that the code title has been revised. In the Alphabetic Index the triangle indicates that the code has been changed.

► ◄ These symbols appear at the beginning and at the end of a section of new or revised text.
Coding Enhancements Included in the Ingenix ICD-9-CM System:

- This symbol indicates that additional digits are required and are found in Volume 2, Alphabetic Index to Diseases.

DEF: This symbol indicates a definition of a disease. The definition will appear in blue type in the Tabular List.

In the Tabular List, the symbols listed below indicate when additional digits are required:

- **4th** This symbol indicates that the code requires a fourth digit.
- **5th** This symbol indicates that the code requires a fifth digit.

More About Fourth- and Fifth-Digit Coding

The following example is found in Volume 2, Section 1, Index to Diseases:

**Milk-leg** (deep vessels) 671.4

In the Index to Diseases, you will find a check box like this at the end of some codes to indicate that additional digits are required. As a healthcare document specialist, you will look in Volume 1, the Tabular List, to choose the appropriate digits to complete the assigned code.

When coding for diagnoses, always check codes in the Tabular List. A **4th** or **5th** box in front of a three-digit code indicates that a fourth or fifth digit is needed to complete the code. Fourth-digit codes are found within the three-digit code category. Designated three-digit code categories include four digits, so it is important to keep looking after you locate the three-digit code. Look at this example taken from the Tabular List:

- **4th** 331 Other cerebral degenerations
  - 331.0 Alzheimer’s disease
  - **5th** 331.1 Frontotemporal dementia

Because code 331 has a **4th** box located to the left, it cannot be used by itself. A code from the codes listed in that category must be chosen for effective coding. Notice that only the subclassification, 331.1-Frontotemporal dementia, requires a fifth digit. Once again, you will code only the digits and not the symbols found in front of the codes.

An example of a fourth-digit subclassification box is found in the Tabular List at the beginning of the section titled *Other Pregnancy With Abortive Outcome (634-639)*. This information guides you to use digits .0-.9 as fourth digits for code categories 634-638. Within the ICD-9-CM manual, the boxed text is shaded in the Tabular List.
Remember that fifth-digit subclassifications can be found in several areas of the ICD-9-CM Volume 1, the Tabular List.

- **At the Beginning of a Chapter**
  
  Take a look at *Chapter 13 Diseases of the Musculoskeletal System and Connective Tissue (710-739)*. Notice the shaded box just below the chapter title that contains fifth-digit subclassifications 0-9. This area states that we can use these digits for categories 711-712, 715-716, 718-719, and 730. Be sure to look back to the chapter beginning to see whether there are fifth digits applicable to the codes that you are assigning.

- **At the Beginning of a Section**

  Look in the Tabular List at *Complications Mainly Related to Pregnancy (640-649)* in Chapter 11. This is a good example of fifth-digit subclassifications being located at the beginning of a section. This information tells us to use digits 0-4 with code categories 640-649.

- **At the Beginning of a Three-digit Category**

  Locate category 715 *Osteoarthrosis and allied disorders* in the Tabular List. Do you see the shaded box after code 715 that includes the fifth-digit subclassifications? These classifications are for use with category 715 only. In coding a diagnosis of osteoarthrosis of the shoulder, you would select 715.9 *Osteoarthrosis, unspecified whether generalized or localized* and add the fifth-digit “1” for shoulder region, making a complete code 715.91.

- **In a Four-digit Subcategory**

  Look at this example taken from the Tabular List:

<table>
<thead>
<tr>
<th>4th</th>
<th>331 Other cerebral degenerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>331.0</td>
<td>Alzheimer’s disease</td>
</tr>
<tr>
<td>5th</td>
<td>331.1 Frontotemporal dementia</td>
</tr>
<tr>
<td>331.11</td>
<td>Pick’s disease</td>
</tr>
<tr>
<td>331.19</td>
<td>Other frontotemporal dementia</td>
</tr>
<tr>
<td>331.2</td>
<td>Senile degeneration of brain</td>
</tr>
</tbody>
</table>

  Because there is a [4th] box listed in front of code 331, the healthcare document specialist knows to choose a four-digit code from the Tabular List. As mentioned earlier, code 331.1 has a [5th] box in front of it. If you look at the indented codes under code 331.1, you will find two choices: 331.11 *Pick’s disease* and 331.19 *Other frontotemporal dementia*. If you were coding for Pick’s disease, you could not use 331.1 but instead must use 331.11 for complete and accurate coding. Note, as well, that if the condition was specified as frontotemporal dementia, without mention of Pick’s disease, you would use the code 331.19.

  By paying close attention to the enhancements in the Tabular List, you can accurately locate the fifth-digit subclassification information to assign a fifth digit.

  Not all codes have fourth or fifth digits, but when they are available, it is the healthcare document specialist’s responsibility to include them for accurate and specific coding.
Also noteworthy is the legend at the bottom of each page in the Tabular List. Being familiar with the terms and symbols at the bottom of each page will help you understand what you are reading in the Tabular List. Manuals may differ according to publisher, but if you develop detective-type skills and look for all the clues that are provided, you will do your best in the healthcare field!

Once again, let’s review what you’ve learned about the conventions the ICD-9-CM coding manual uses before you move on.

Step 14: Practice Exercise 23-3

Choose the best answer from the choices provided.

1. When a diagnosis is not principal and is used alone, you should code the _____ first.
   a. primary disease
   b. underlying disease
   c. always secondary disease
   d. usually secondary diagnosis

2. ICD-9-CM coding uses the [INCLUDES] and [EXCLUDES] instructional notes to assist healthcare document specialists in assigning diagnostic codes at the _____ level.
   a. lowest
   b. median
   c. highest
   d. most obvious

3. Notes, when found in the Index to Diseases, are _____.
   a. boxed and italicized
   b. boldface and circled
   c. boxed and boldface
   d. underlined and highlighted

4. In the multiple coding instruction, “Use additional code, if desired,” you should ignore the words _____.
   a. use additional
   b. additional code
   c. use code
   d. if desired

5. NEC means _____.
   a. never ever code
   b. not elsewhere classifiable
   c. not enough classification
   d. never endeavor coding
6. NOS means _____.
   a. never occupied specialty
   b. nine other subclassifications
   c. not otherwise specified
   d. not often subdivided

7. A note might instruct you to assign a(n) _____ digit because subclassification categories are available.
   a. third
   b. fourth
   c. additional
   d. fifth

Step 15: Review Practice Exercise 23-3
Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 16: ICD-9-CM Terminology
Many—if not most of—the terms used in the ICD-9-CM manual have other definitions and meanings when they are used elsewhere. You need to be familiar with terms that are used throughout the ICD-9-CM manual as they relate to medical coding. This will help you code a medical diagnosis correctly.

The following definitions are specific to their use in the ICD-9-CM coding manual:

- **Acute**—Short and severe; for example, a new injury or disease.
- **Adverse**—Any unfavorable, unintended response to a drug that occurs with proper dosage.
- **Aftercare**—A visit to the medical facility for something planned in advance; for example, the removal of sutures (stitches).
- **Chronic**—To continue over a long period of time or recurring frequently.
- **Concurrent**—When a patient is treated simultaneously by more than one physician for different care conditions.
- **Foreign body**—An object not naturally occurring in the human body.
- **Late effect**—A residual effect after the acute phase of an illness or injury has ended.
- **Manifestation**—The characteristic signs or symptoms of an illness.
- **Residual**—The long-term conditions resulting from a previous acute illness or injury.
When both an acute disease and a chronic disease coexist and no single code exists to code both diseases together, code the acute disease as the principal diagnosis and the chronic disease as the secondary, or coexisting, condition. Here’s an example. The physician documents acute and chronic thyroiditis. With the help of your medical terminology knowledge, you can figure out that this condition is inflammation of the thyroid gland. Now, look in your ICD-9-CM manual’s Index to Diseases for thyroiditis. Then look for the subterms acute and chronic. You will find codes 245.0 Acute thyroiditis and 245.8 Chronic thyroiditis. Go to the Tabular List to verify these codes. You will code the acute condition first, listing code 245.0, and then code 245.8.

A late effect is a residual condition that occurs after the acute phase. Late-effect categories are three-digit categories, and they can require additional digits. When you code a late effect you generally assign two codes: the residual effect and the cause of the late effect. Sometimes a late-effect code has been expanded to a fourth or even fifth digit to include the manifestation or residual effect, and only one code is needed. Remember when you code late effects that there is no time limit between the acute phase and the late effect. In other words, some period of time can pass between the acute phase of a condition and the point at which the late effect or residual condition is diagnosed.

Let’s also review two terms we talked about in previous lessons—chief complaint and diagnosis. You recall that the chief complaint is the main reason a patient sees a doctor. For example, if a patient tells a doctor that he has a sore throat, that is the chief complaint. The diagnosis occurs when the doctor identifies what is wrong with a patient. In our example, the doctor might examine the patient and determine the patient has strep throat. This is the diagnosis.

One last important term with which you should be familiar is unconfirmed diagnoses. You do not code conditions when it is uncertain if they really exist. In other words, don’t code a condition until it has been determined to be the diagnosis. Unconfirmed diagnoses are suspected conditions, such as those that contain words like suspicion of, probable or likely.

It’s important that the healthcare document specialist does not play doctor and narrow down the choices of categories for the diagnosis. The concept of unconfirmed diagnoses affects how insurance companies reimburse, so it is important that you understand it. We’ll discuss how to deal with unconfirmed diagnoses later in your studies.

**Step 17: The Appendices**

Volume 1, the Tabular List of the ICD-9-CM manual contains four appendices. (Prior to October 1, 2004, there were five. Appendix B no longer exists.) As a group, these appendices provide additional information about the coding for a patient’s diagnosis, further define a diagnostic statement, provide clarification about new drugs and reference three-digit categories. Appendices are a good place to look when you need detailed information about a specific topic. Specifically, each appendix of the ICD-9-CM includes the following information.
Appendix A—Morphology of Neoplasms

Morphology is the study of neoplasms, or tumors. This appendix provides additional detailed information about coding diagnoses in this category, such as types of tumors, behavior of tumors and one-digit codes that are used to code neoplasms. The following is an example entry from Appendix A:

M975 Burkitt’s tumor  
M9750/3 Burkitt’s tumor

These codes are optional and are usually used for statistical information only. The morphology codes will not be used in this program.

Appendix B—Glossary of Mental Disorders

This appendix was deleted October 1, 2004.

Appendix C—Classification of Drugs by AHFS List

This appendix is an alphabetized listing of drugs. A division of the American Hospital Formulary Service, or AHFS, publishes a coded listing of drugs. Appendix C is an alphabetized listing of those drugs and their ICD-9-CM codes. The AHFS codes in this appendix contain up to five digits and always begin with a number, followed by a colon and up to four more digits to provide adequate detail. The following is an example entry from Appendix C:

<table>
<thead>
<tr>
<th>AHFS List</th>
<th>ICD-9-CM Diagnosis Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>28:04 General Anesthetics</td>
<td>968.4</td>
</tr>
<tr>
<td>gaseous anesthetics</td>
<td>968.2</td>
</tr>
<tr>
<td>halothane</td>
<td>968.1</td>
</tr>
<tr>
<td>intravenous anesthetics</td>
<td>968.3</td>
</tr>
</tbody>
</table>

Appendix D—Industrial Accidents According to Agency

This appendix contains three-digit codes to classify occupational, or job-related, hazards. Seven categories contain all the occupational categories. You often will use these codes to track job-related causes of injury and death. The following is an example entry from Appendix D:

1 MACHINES
11 Prime-Movers, except Electrical Motors
111 Steam engines
112 Internal combustion engines
119 Others
Appendix E—List of Three-Digit Categories

Appendix E contains a list of all the three-digit codes in the *ICD-9-CM* manual. These codes are grouped by chapter to correspond with Chapters 1 through 17 of Volume 1, the *Tabular List*, diagnostic codes. The following is an example entry from Appendix E:

<table>
<thead>
<tr>
<th>LIST OF THREE-DIGIT CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INFECTIOUS AND PARASITIC DISEASES</td>
</tr>
<tr>
<td>Intestinal Infectious Diseases (001 – 009)</td>
</tr>
<tr>
<td>001 Cholera</td>
</tr>
<tr>
<td>002 Typhoid and paratyphoid fevers</td>
</tr>
<tr>
<td>003 Other salmonella infections</td>
</tr>
<tr>
<td>004 Shigellosis</td>
</tr>
<tr>
<td>005 Other food poisoning (bacterial)</td>
</tr>
<tr>
<td>006 Amebiasis</td>
</tr>
<tr>
<td>007 Other protozoal intestinal diseases</td>
</tr>
<tr>
<td>008 Intestinal infections due to other organisms</td>
</tr>
<tr>
<td>009 Ill-defined intestinal infections</td>
</tr>
</tbody>
</table>

Wow! We’re almost done with this lesson. Stop for a moment to review what you learned about terminology and the *ICD-9-CM* manual’s appendices by completing the following Practice Exercise.

**Step 18: Practice Exercise 23-4**

Choose the best answer from the choices provided.

1. An object not naturally occurring in the human body is _____.
   a. a foreign body
   b. acute
   c. chronic
   d. a manifestation

2. A late effect is defined as a(n) _____ effect after the acute phase of an illness or injury has ended.
   a. aftercare
   b. concurrent
   c. chronic
   d. residual

For the following questions, match each appendix with the description of its contents.

3. _____ Appendix A  a. Drug classification
4. _____ Appendix B  b. Three-digit categories
5. _____ Appendix C  c. Study of tumors
6. _____ Appendix D  d. Was deleted in 2004
7. _____ Appendix E  e. Job-related accidents
Step 19: Review Practice Exercise 23-4

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 20: The Steps to Correct Coding

So how do you actually begin to assign codes? Well, one of the first sections you will come across in the very beginning of the ICD-9-CM book is a section that outlines the 10 Steps to Correct Coding. Take a few moments to read these steps now.

Now that you’re familiar with the steps provided in the ICD-9-CM book, let’s break them down into the basics here. In later lessons, as you start to code, you will work through the following steps:

Steps for Assigning Diagnostic Codes

1. Identify the main terms in the diagnostic statement.
2. Locate each main term in the Index to Diseases and read any notes that appear with the main term.
3. Refer to any subterms indented under the main term in the Index to Diseases.
4. Look at abbreviations, cross-references, symbols and brackets.
5. Choose the tentative code you find in the Index to Diseases, Volume 2, then locate and determine the highest level of specificity in the Tabular List, Volume 1.
6. Read and use any instructional terms in the Tabular List as a guide. Look for includes and excludes, notes and other instructional comments at the beginning of each chapter. Also, look at the three-digit code at the beginning of each category or group of codes that you are using within the chapter and check for additional instructions for the group.
7. Assign codes to their highest level of specificity, using the following guidelines:
   ● Assign three-digit codes only when there are no four-digit codes within that category.
   ● Assign a four-digit code only when there is no fifth-digit subdivision for that subcategory.
   ● Assign a fifth-digit to the code for any subcategory for which a fifth-digit subclassification is provided.
   ● Remember to continue coding the dictation until all conditions have been fully identified before assigning the code.

Outpatient Coding Tips

♠ If it is not documented, it did not happen.
♠ Do not assume anything.
♠ Terms such as possible, suspect, probable, rule out or consistent with are not assigned codes.
♠ Code symptoms only when a definitive diagnosis is not documented.
♠ Check with the physician if the information is unclear.
Practice Makes Perfect

The key to diagnosis coding is to ask yourself a series of questions. Let's practice this process and the basic steps to coding. Take out your ICD-9-CM manual and follow along with the coding examples listed below. As you know from the basic steps to coding that you just learned, each example begins in the Index to Diseases, or Volume 2, and is verified in the Tabular List, or Volume 1. Don't worry if you have a hard time following this series of steps at first. In the next lesson, you'll walk through scenarios like this step-by-step as you begin to code on your own.

Diagnosis: noncardiac chest pain
What's the main term? pain
Where's the pain? chest
What's the type of pain? noncardiac
The Volume 2 coding pathway is pain, chest, noncardiac 786.59
Now turn to the Tabular List and verify the code description for 786.59.

Note: Because noncardiac chest pain was specified, code 786.59 Chest pain, Other is used instead of an unspecified code. Trust the coding pathway you found in Volume 2, Index to Diseases, to lead you to the correct code.

Diagnosis: sprained ankle
What's the main term? sprain
Where's the sprain? ankle
Does it include the foot? no
The Volume 2 coding pathway is sprain, ankle 845.00
Turn to the List and verify the code description for 845.00.
Notice that the specific part of the ankle is not documented, and so you code for unspecified site using the fifth-digit 0.

Diagnosis: diabetic cataracts
What's the main term? cataracts
What's the cause? diabetes
The Volume 2 coding pathway is cataract, diabetic 250.5 [366.41]

What does this boxed symbol mean? Turn to code 250.5 in the Tabular List. You'll note the fifth-digit subclassification box for the code category 250. In this example, the type of diabetes is not specified, so the fifth digit would be 0. Now let's talk about the code in slanted brackets [366.41]. Remember that slanted brackets mean you must use the code in those brackets, too. So in this example, 250.50 is the primary diagnosis, and 366.41 is the secondary diagnosis. When you look up both these codes in the Tabular List, you'll see that the code descriptions are verified.
Step 21: Pathways

Remember that the key to diagnosis coding is to ask yourself a series of questions once you have the documentation we discussed in previous lessons. The main question is “What is the problem?” After you identify the problem or diagnosis, use the main terms and subterms to locate the code in Volume 2 of the ICD-9-CM, as we just discussed.

The coding pathway refers to the series of main terms and subterms used to find the diagnostic code in that manual. The main term is listed first, and then the subterm. Think of a coding pathway as a road map you would follow to arrive at your destination. To what city are you going? What highway do you follow, and what exit do you use to arrive at your destination? So you see, a coding pathway is like a road map to the correct code!

Let’s take a look at an example of a coding pathway.

Aaron, age 7, presents with a fever and a pain in his right ear. The doctor examines him, and this is her diagnosis: otitis media, right ear.

You know the diagnosis is otitis media because the doctor has documented it in the patient’s medical record. What do you look for first? Otitis is the main term. Remember your medical terminology? Otitis means inflammation of the ear. It is a medical condition. Media means middle, so now you know that media is the subterm because it describes the location of the condition within the ear.

So the coding pathway for Aaron’s diagnosis is otitis, media. Following is a sample entry from the ICD-9-CM that shows how this condition looks in Volume 2.

### Volume 2 INDEX TO DISEASES

<table>
<thead>
<tr>
<th>Othematoma</th>
<th>380.31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Otitic hydrocephalus</td>
<td>348.2</td>
</tr>
<tr>
<td>Otitis</td>
<td>382.9</td>
</tr>
<tr>
<td>with effusion</td>
<td>381.4</td>
</tr>
<tr>
<td>acute</td>
<td>382.9</td>
</tr>
<tr>
<td>adhesive (see also Adhesions, middle ear)</td>
<td>385.10</td>
</tr>
<tr>
<td>chronic</td>
<td>382.9</td>
</tr>
<tr>
<td>diffuse parasitic</td>
<td>136.8</td>
</tr>
<tr>
<td>externa (acute) (diffuse) (hemorrhagica)</td>
<td>380.10</td>
</tr>
<tr>
<td>insidiousa (see also Otosclerosis)</td>
<td>387.9</td>
</tr>
<tr>
<td>interna (see also Labyrinthitis)</td>
<td>386.30</td>
</tr>
<tr>
<td>media (hemorrhagic) (staphylococcal) (streptococcal)</td>
<td>382.9</td>
</tr>
</tbody>
</table>

Well done! Let’s take a look at some clinical applications of the coding rules.
Step 22: Clinical Applications of Coding Rules

As a healthcare document specialist, you are something of a translator. You will take diagnoses and translate them into medical codes. To do that, you must understand small but significant differences that you might find as you code. In addition, you must know the rules of coding to accurately assign specific codes. Knowing how to properly sequence and report diagnostic codes is your goal.

Let’s consider some clinical applications of coding rules. As you deal with the bulleted situations that follow, be aware of the rules that accompany them.

- **Physician Coding**—When you code a physician’s diagnosis of a patient’s condition, the principal, or primary, diagnosis is the most important because it reflects the current and most significant reason a patient seeks treatment. You assign secondary codes to coexisting diseases and conditions after you code the primary diagnosis. Remember that when you assign a code for a pre-existing condition, you must ensure that the diagnostic code identifies the current reason for medical care. Do not assign codes for rule-out statements such as probable, possible, questionable, rule out and suspected in outpatient settings.

- **Common Coding for Outpatients and Inpatients**—You will assign codes for the principal outpatient or principal inpatient diagnosis and sequence the codes in the correct order. Use the appropriate coding rules and guidelines that you are learning. The following tips will be helpful to remember:

1. Assign codes in the order of importance. The order in which the doctor writes the diagnosis might not determine the main diagnosis. Determine the correct diagnosis order before you list the codes. As the healthcare document specialist, you sometimes will not be able to determine the principal diagnosis and might have to ask the doctor.

2. Assign unspecified or other specified codes when the reason a patient seeks healthcare is not clarified. For example, use unspecified codes when the diagnosis has not been finalized. Use other specified codes when a diagnosis has been made and there is no code to identify the diagnosis more specifically.

3. Assign coexisting condition codes as supplementary diagnoses codes in order of importance after you assign the principal diagnosis code. The order of importance might be based in part on the time it takes to complete the patient’s health care and on the resources that are used for each relevant code.

**Inpatients and Outpatients**

Even though you are already familiar with the terms inpatient and outpatient, let’s talk about them in greater detail here. An inpatient is someone admitted to the hospital to stay overnight. People who come to the hospital for an x-ray or laboratory test are referred to as outpatients. These are patients who are receiving ancillary services—they come to the hospital to receive the medical service or treatment, and then they go home the same day. Outpatients include patients who go to the hospital for outpatient surgeries or procedures, IV therapies or ED visits. Outpatients also are patients at doctors’ offices and other outpatient facilities such as MRI centers, outpatient surgery centers and chemotherapy or dialysis specialty clinics.
This is an example of what makes your job as a healthcare document specialist so important! When a patient is admitted for surgery at a hospital, he receives two bills. One is from the hospital, and one is from the surgeon. The surgeon's healthcare document specialist assigns codes for the diagnosis the surgeon gave and the procedure she performed for the inpatient. Then the claim form is sent to the patient's insurance company for reimbursement. The services that a patient uses while he is in the hospital, such as the room charge, the operating room and any medications received, are charged and coded by the hospital inpatient healthcare document specialist.

Now, let's pause to complete a Practice Exercise.

**Step 23: Practice Exercise 23-5**

Choose the best answer from the choices provided.

1. The first step in ICD-9-CM coding is to identify all _____.
   a. Tabular Lists
   b. Alphabetic Indexes
   c. main terms
   d. three-digit codes

2. Assign codes to their _____ level of specificity.
   a. individual
   b. highest
   c. diagnostic
   d. subclassified

3. When you assign codes for an outpatient or inpatient diagnosis, the _____ is the first code sequenced.
   a. coexisting condition
   b. unspecified code
   c. principal diagnosis
   d. questionable diagnosis

4. Do not assign codes for _____ statements in outpatient settings.
   a. rule-out
   b. line-in
   c. opt-out
   d. add-in
For the following items, write on your own paper as directed.

5. **Urinary tract infection**
   - Main term
   - Subterm
   - Coding pathway

6. **Recurrent appendicitis**
   - Main term
   - Subterm
   - Coding pathway

7. **Unknown pain in leg**
   - Main term
   - Subterm
   - Coding pathway

8. **Diaper rash**
   - Main term
   - Subterm
   - Coding pathway

9. **Loss of appetite**
   - Main term
   - Subterm
   - Coding pathway

10. **Inflammation of the sinus**
    - Main term
    - Subterm
    - Coding pathway

11. **High-altitude sickness**
    - Main term
    - Subterm
    - Coding pathway

12. **Vision examination**
    - Main term
    - Subterm
    - Coding pathway
13. **Ear examination**
   - Main term
   - Subterm
   - Coding pathway

---

**Step 24: Review Practice Exercise 23-5**

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made. If you have questions, review your lesson material, then contact your instructor.

---

**Step 25: Lesson Summary**

Think of how much you’ve already learned about diagnostic coding! You understand how each volume is organized, and you have a firm grasp of the content of each section, appendix and chapter. This lesson also taught you about the numerous conventions of the *ICD-9-CM*. We covered a lot of information here, so if you found any of it confusing, go back and reread the lesson step(s) that you found difficult to understand. And remember, your instructor is available to answer your questions!

In addition to what you’ve learned in this lesson, you have seen a lot of examples of actual medical codes. Although looking at all of these codes might have been a bit intimidating at first, remember, just as is true of the *ICD-9-CM*, the more you see these codes and study their uses, the more familiar they will become to you. Before you know it, you’ll be using these codes without thinking twice as you embark on your new career as a healthcare document specialist!
Nice job!
You’ve learned the basics of the ICD-9-CM.

Let’s get some hands-on practice!

Turn the page to learn how to code conditions, such as measles, mumps and rubella.

Continue to Lesson 24.
Lesson 24
ICD-9-CM Coding—From Infections to Blood Diseases

Step 1: Learning Objectives for Lesson 24

When you have completed the instruction in this lesson, you will be trained to do the following:

- Define and provide examples of the following:
  - infectious and parasitic diseases
  - neoplasms
  - endocrine diseases
  - nutritional diseases
  - metabolic diseases
  - immunity disorders
  - diseases of the blood and blood-forming organs.

- Apply the rules related to Chapters 1 through 4 of the Tabular List in the ICD-9-CM manual.

- Identify the diagnoses, outline the coding pathway and assign the final code for the documented disorders and diseases.

Step 2: Lesson Preview

Now that you understand the format and conventions of the ICD-9-CM you’re ready to learn the functions of the manual. In the next few lessons, we’re going to group the information from each of the chapters in Volume 1 of the ICD-9-CM manual, the Tabular List, and show you how to code some of the subject matter included in each chapter. This lesson covers the contents of Chapters 1 through 4: Infectious and Parasitic Diseases; Neoplasms; Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders; and Diseases of the Blood and Blood-forming Organs.
As you work through the materials, you will encounter real-world scenarios that follow medical transcription rules. The rules followed by medical transcriptionists may vary from the rules followed by a medical coding specialist. For instance, medical transcriptionists do not use possessives for eponyms such as Alzheimer disease, while the ICD-9-CM will list the disease as Alzheimer’s in the index as well as in the Tabular List. In addition, a medical transcriptionist will list stages of burns as 1st-degree, while the medical coder will locate first-degree. Keep in mind, the dictation provided has been formatted to compliment the medical transcription portion of your program, but you may see variances when learning the medical coding portion.

The material in this lesson might seem like a lot of information, but don’t worry. We’ll work through everything methodically and give you plenty of practice along the way. For example, each chapter of the ICD-9-CM manual is divided into sections. Each section contains a group of closely related conditions, or categories. We will define each section for you and show you the important references in the Tabular List. Then you will begin the step-by-step process of diagnostic coding for sample dictations and scenarios!

Keep one thing in mind as you code the Practice Exercises and scenarios throughout the following ICD-9-CM coding lessons: for now, we are focusing only on ICD-9-CM codes—not CPT (or procedure) codes. You will see physician notes and documentation about specific procedures in some of the scenarios we use just because we want you to practice with authentic examples. But remember that you will code only the diagnoses during these lessons. You will have plenty of time and lots of practice combining procedural and diagnostic codes in later lessons, after you’ve become more familiar and comfortable with the ICD-9-CM codes.

By the time you finish these diagnostic coding lessons, you’ll be using your ICD-9-CM book with ease and confidence! You’ll know where to look when you need assistance as you code, and you’ll have these materials to use as a reference tool during the remainder of the program and in your career as a healthcare document specialist. So, get ready... Get set... Let’s code!

### Step 3: Infectious and Parasitic Diseases (001-139), Part 1

Infectious and parasitic diseases generally are caused by a bacterium, virus, fungus or animal parasite. Occasionally, their cause also may be unknown. These infections can be transmitted from a host organism, or they simply can be created within the human body. Some examples of infectious and parasitic diseases discussed in this chapter are food poisoning, bubonic plague, HIV, warts and thrush.

Let’s start by opening your ICD-9-CM manual to the Tabular List at the beginning of the “Infectious and Parasitic Diseases” chapter. At the top of the page, just under the chapter title, you will see a note. Remember what you learned about notes in Lesson 23? The note here in Chapter 1 indicates that you will find the categories for late effects of infectious and parasitic diseases in codes 137 through 139. Below the note, you see INCLUDES. This informs you that you will find diseases generally recognized as communicable or transmissible, and a few diseases of unknown but possibly infectious origin, in this chapter. Below the INCLUDES you’ll find EXCLUDES. The EXCLUDES directs you to other codes for diseases that are not included within this chapter.

One final note on locating codes for this chapter: If, from the dictation you receive, you have trouble finding the main term of a diagnosis in the Index to Diseases, turn to the main term Infection. The diseases in this chapter are infections, so that is a great place to start when you find yourself stuck! An example of this is staphylococcus aureus. You will not locate the correct code by using staphylococcus as the main term. Use Infection as the main term in the Index to Diseases. The subterms staphylococcal and aureus will lead you to the correct code for this condition.
Now that you have a bit of information about the “Infectious and Parasitic Diseases” chapter, let’s move on to the first section. In each section, we’ll provide you with examples so you can see how the codes fall into place.

### Intestinal Infectious Diseases (001-009)

**Intestinal infectious diseases** are located in the intestine. Infectious organisms or parasites cause diseases, which include cholera, shigellosis, food poisoning, Escherichia coli (E coli) and infectious diarrhea.

Take a look at the section “Intestinal Infectious Diseases (001-009)” in your ICD-9-CM book, and see what information is provided. Remember to look for inclusions, exclusions and additional notes to assist you in assigning accurate codes. In this case, you see by the [EXCLUDES] under the subheading mentioned above, that codes in the 001-009 section are not to be used if you are coding helminthiases.

Let’s look at a few diseases and the information available in Chapter 1 to assist you as you code. Turn to code **005 Other food poisoning (bacterial)**. The [EXCLUDES] informs you that if you code food poisonings caused by salmonella infections, you use codes 003.0 through 003.9. Now turn to code **008 Intestinal infections due to other organisms**. You see that this category [INCLUDES] any condition classifiable to 009.0 through 009.3 with mention of the responsible organisms. Code 008 [EXCLUDES] food poisoning by diseases with the codes 005.0 through 005.9. If you turn to codes 005.0 through 005.9, you see that those diseases include staphylococcal, botulism, C. welchii, Clostridia, Vibrio parahaemolyticus, other bacterial food poisonings and unspecified food poisoning. Are you starting to see the importance of the information the ICD-9-CM manual provides as you code?

Now, put your ICD-9-CM manual to work. Let’s say a patient is diagnosed with Salmonella septicemia. To begin your search for the accurate code, start with the Index to Diseases in Volume 2 and work through those basic coding steps presented in the previous lesson. To find the main term, remember to ask yourself, “What is the problem?” The problem is septicemia, so locate Septicemia in the alphabetical index. Next, ask yourself, “What type of septicemia does the physician say it is?” If you answered Salmonella, you’re on the right track!

Under Septicemia in the index, find Salmonella. The Index to Diseases indicates the tentative code is **003.1**.

But you’re not done yet! Remember, this code is only a tentative code. Once you find the code in the Index to Diseases, you must always look up that code in the Tabular List to determine the highest level of specificity. The Tabular List is organized numerically, so you just need to locate 003.1. The description provided in the Tabular List for 003.1 is Salmonella septicemia. There are no inclusions, exclusions, additional digits or notes provided. Therefore, you will assign code **003.1 Salmonella septicemia** for the diagnosis.

### Tuberculosis (010-018)

The second section in Chapter 1 of the Tabular List is “Tuberculosis (010-018).” **Tuberculosis** is an infectious disease caused by the genus Mycobacterium. At one time, tuberculosis was one of our society’s most deadly diseases, but the invention of new drugs has steadily decreased the spread of this disease since the 1950s. Nevertheless, the illness still afflicts nearly 25,000 Americans every year, most of whom have lung disease.

**Tubercles**, or small, rounded lesions and tissues that begin to resemble cheese are a couple of the characteristics of the disease. Tuberculosis can affect any organ, although the disease usually is found in the lung.
What does the Tabular List tell us about tuberculosis? Let's take a look. The section “Tuberculosis (010-018)” INCLUDES infection by Mycobacterium tuberculosis (human) (bovine). It EXCLUDES congenital tuberculosis (771.2) and late effects of tuberculosis (137.0-137.4). Do you see a shaded box similar to this one?

This boxed information indicates that all codes in the 010 through 018 range require a fifth-digit subclassification. This means that if you submit 011.0 as a code for infiltrative pulmonary tuberculosis, the code is invalid because a fifth digit is required. You will need to use the boxed chart to determine the final digit.

Now let's use the following dictation to practice what you've just learned:

**Pathology Report**

**CHIEF COMPLAINT**
Productive cough, rule out tuberculosis.

**LABORATORY FINDINGS**
Sputum was positive for AFB by microscopy. PPD was positive. Hct 25, MCV 72, total protein 5.8; iron studies pending.

**IMPRESSION**
Miliary tuberculosis.
Your first step is to determine the main term, and then locate that term in the Index to Diseases. The condition is tuberculosis, so locate that term in the index. What type of tuberculosis is it? It is miliary tuberculosis. The answers to these questions tell you the coding pathway in the index is Tuberculosis, miliary.

The tentative diagnostic code indicated is 018.9. However, you know that if you stop here, your code is invalid. Turn to the Tabular List to determine the highest level of specificity. Locate code 018.9 in the Tabular List, then look to the beginning of the category, which provides you with the information for the fifth-digit subclassification. The dictation indicates that the tuberculosis was found in the sputum by microscopy, which means 3 is the correct fifth digit. Therefore, the code you assign for the diagnosis of miliary tuberculosis found in the sputum by microscopy would be 018.93 Miliary tuberculosis, unspecified, tubercle bacilli found (in sputum) by microscopy.

Zoonotic Bacterial Diseases (020-027)
The next section in the “Infectious and Parasitic Diseases” chapter is “Zoonotic Bacterial Diseases (020-027).” Zoonotic bacterial diseases are transmitted from animal to person under natural conditions. Diseases in this section include the plague, deerfly fever and anthrax. The bubonic plague is the most common, acute and severe form of the plague characterized by lymphadenopathy, chills, fever and headache.

Other Bacterial Diseases (030-041)
The section “Other Bacterial Diseases (030-041)” covers leprosy, diphtheria, whooping cough, scarlet fever, tetanus and septicemia. In this section, you will find an EXCLUDES that directs you to use codes 098.0 through 099.9 if you are coding bacterial venereal diseases. The EXCLUDES also indicates that you are to use code 088.0 if you are coding bartonellosis.

Locate 033 Whooping Cough in the Tabular List. Do you see the note to use an additional code to identify any associated pneumonia? This means that if whooping cough is documented with pneumonia in the dictation you receive, you must code the pneumonia, as well. You will find similar directions under code 041 Bacterial infection in conditions classified elsewhere and of unspecified site. The note informs you that this category is provided for use as an additional code to identify the bacterial agent in diseases classified elsewhere. You will also use this category to classify bacterial infections of unspecified nature or site. As you continue reading, you will see that septicemia is excluded.

Let’s try an example. As a healthcare document specialist, you must code laryngeal diphtheria. As usual, you begin in the Index to Diseases with the main term Diphtheria. The subterm is laryngeal, the type of diphtheria. The coding pathway of diphtheria, laryngeal indicates 032.3 as the tentative code. Turn to the Tabular List and locate 032.3 to determine the highest level of specificity. Based on the information here, you will assign the ICD-9-CM code 032.3 Laryngeal diphtheria.

Septicemia is a systemic infection associated with organisms in the bloodstream. Symptoms of septicemia include fever, malaise and, possibly, impaired organ function. Septicemia is treated with antibiotics and fluid hydration. It is a serious condition that could lead to death.
What information does the ICD-9-CM manual provide about septicemia? In the Tabular List, code category 038 states to use an “additional code for systemic inflammatory response syndrome (SIRS) (995.91-995.92).” This general statement requires some more detail for accurate coding, and you will find that information in the guidelines in the front of your ICD-9-CM manual. As you see in the Tabular List, category 038 codes for septicemia. In most cases, you will use code 038 in conjunction with code 995.9. However, sepsis or SIRS must be documented for you to use the 995.9 code. Let’s look at some examples for a better understanding of when you need to apply the additional code, and when it is not necessary.

Streptococcal septicemia. The coding pathway is Septicemia, streptococcal, which you use to locate the tentative code of 038.0. You then turn to the Tabular List to verify the highest level of specificity for this code. The note indicates to use an additional code for SIRS. But SIRS or sepsis is not documented; therefore, you will assign 038.0 Streptococcal septicemia as the only code for this diagnosis.

Streptococcal sepsis. This is a challenging diagnosis to code because the pathway is not straightforward and requires some knowledge about the disease. Sepsis occurs when there is a breakdown of local defense barriers, which permits the spread of an infection, or absorption of toxic materials. Sepsis may be seen as cellulitis, lymphangitis, lymphadenitis or septicemia. So septicemia is a form of sepsis. If the physician documents streptococcal sepsis, you will code 038.0 Streptococcal septicemia in conjunction with the SIRS (Systemic inflammatory response syndrome) code 995.91.

Although we won’t focus on the codes in Chapter 17 for awhile, you will find it helpful to familiarize yourself with code 995.9 in the Tabular List now. Take a look at the five-digit code 995.91 from above, together with its detailed description: 995.91 Systemic inflammatory response syndrome (SIRS), Sepsis.

Human Immunodeficiency Virus (HIV) Infection (042)

HIV is a virus that can be separated into two stereotypes: HIV-1 and HIV-2. HIV is the cause of acquired immunodeficiency syndrome, or AIDS. HIV-1 is found worldwide, while HIV-2 is largely confined to West Africa. As its name implies, AIDS is a syndrome (a mixture of symptoms) that results from severe immunodepression caused by the human immunodeficiency virus (HIV). AIDS is the profound depression of cell-mediated immunity that affects patients with a wide variety of backgrounds.

HIV cannot survive outside of human cells, and humans are the only source of HIV infection. HIV is transmitted from one person to another by close contact that allows for the transfer of body fluids.

AIDS affects almost all organs of the body. Because the body can no longer fight infection or organ disease, AIDS victims eventually become ill with cancer, pneumonia and many other diseases. AIDS is a prime example of the body’s immune system malfunctioning to the point that all organs eventually become affected, as the following figure shows.
**ICD-9-CM Guidelines for HIV**

Following are some rules to keep in mind when coding HIV and AIDS. They are taken from the *Coding Guidelines, C. Chapter-Specific Coding Guidelines* in the front on the *ICD-9-CM* manual. Be sure to review these guidelines in detail when you use code 042 for any patient. The guidelines also discuss code V08 for asymptomatic HIV. We will discuss V codes in a later lesson, but be aware that this is an important code when coding for patients who have tested positive for HIV but are currently showing no symptoms of the disease.

- **Code only confirmed cases of HIV infection or illness stated by a physician.** In other words, if the physician does not document HIV as a definite diagnosis, then you cannot code for it.

- **When a patient is treated for an HIV-related condition or infection,** code 042 as the principal diagnosis, followed by additional codes for related diagnoses. Many conditions can be related to HIV such as pneumonia or thrush. If the patient has an HIV-related condition, you must use code 042 as the principal diagnosis code and then code for the condition.

- **When an HIV patient is being treated for an unrelated condition (e.g., fracture of ankle),** code that condition as the principal diagnosis. Then code 042 as an additional diagnosis to identify the patient’s HIV status. In the example given, the fractured ankle is unrelated to the HIV infection. The fracture is the reason the patient is being treated, so the code for the fractured ankle is listed as the principal diagnosis, and the HIV status is coded as a secondary diagnosis.

- **Use V08 Asymptomatic human immunodeficiency virus [HIV] infection status** for patients with no documented symptoms but with a positive HIV test result. You will *not* use code V08 if AIDS is already documented or if the patient has any HIV-related illnesses. Once a patient has had documented symptoms of HIV, V08 cannot be used again.
Healthcare Documentation Program

- Code 795.71 **Nonspecific serologic evidence of human immunodeficiency virus [HIV]** for patients with inconclusive HIV serology but no definitive diagnosis or manifestations of the illness. Use this code *only* if test results are inconclusive and HIV has not been given as a definitive diagnosis.

- Once a patient has been coded 042, you must use this code on every following visit. You cannot assign 795.71 or V08 to that patient again.

Now take a look at the following dictation and consider how you would code the diagnosis if you were the healthcare document specialist in this clinic.

**SUBJECTIVE**
A 24-year-old established patient is seen at the clinic for 2-week history of flu-like symptoms, including fever, headache, and tiredness. Patient history indicates weight loss and an enlarged lymph node × 3 months. Social history of intravenous drug abuse.

**OBJECTIVE**
After a comprehensive examination, HIV antibody and Western blot tests were ordered.

**ASSESSMENT**
Symptoms are consistent with HIV. Results of the HIV antibody and Western blot tests confirm the patient is HIV positive.

**PLAN**
The patient is provided a prescription for Retrovir.

Once again, use your *ICD-9-CM* manual to practice. You know the problem is that the person has an infection. The type of infection is HIV, and the virus is showing symptoms. Locate the main term *Infection* in the *Index to Diseases*, followed by the subterm *HIV*.

If you stop there, you will have the tentative code, V08. *Asymptomatic* means there are no symptoms. In the example, the physician dictated that there were symptoms, so you must continue your search for the correct code. Just below the term *HIV*, you see: *with symptoms, symptomatic* 042. Turn to code 042 in the *Tabular List* to determine the highest level of specificity so that you know you have accurately coded the symptomatic HIV infection. You will then assign 042 **Human immunodeficiency virus [HIV] disease** as the correct code.

Before we move on to the other sections, let's review what you’ve learned so far. You’ll get a little hands-on practice here, too!
Step 4: Practice Exercise 24-1

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Food poisoning
   ICD-9-CM code:

2. Infiltrative pulmonary tuberculosis, found by culture
   ICD-9-CM code:

3. Rabbit fever
   ICD-9-CM code:

4. Pertussis
   ICD-9-CM code:

5. Septicemia due to Bacteroides
   ICD-9-CM code:

6. Pneumocystis carinii pneumonia with AIDS
   ICD-9-CM code:
   ICD-9-CM code:
Use the following information to complete the CMS-1500 that follows:

7. ICD-9-CM Coding/Billing Challenge

<table>
<thead>
<tr>
<th>James Hahns, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>800 Medical Court</td>
</tr>
<tr>
<td>Yourtown, CO 80000</td>
</tr>
<tr>
<td>(970) 555-2222</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Patient Information</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
</tr>
<tr>
<td><strong>Date of Birth</strong></td>
</tr>
<tr>
<td><strong>Sex</strong></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
</tr>
<tr>
<td><strong>Address</strong></td>
</tr>
<tr>
<td><strong>State</strong></td>
</tr>
<tr>
<td><strong>ZIP</strong></td>
</tr>
<tr>
<td><strong>Home Phone</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Employment Information</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name of Employer</strong></td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
</tr>
<tr>
<td><strong>X Full-time</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Insurance Information</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Insurance</strong></td>
</tr>
<tr>
<td><strong>Name</strong></td>
</tr>
<tr>
<td><strong>ID#</strong></td>
</tr>
<tr>
<td><strong>Group#</strong></td>
</tr>
<tr>
<td><strong>Address</strong></td>
</tr>
<tr>
<td><strong>City</strong></td>
</tr>
<tr>
<td><strong>State</strong></td>
</tr>
<tr>
<td><strong>ZIP</strong></td>
</tr>
<tr>
<td><strong>Secondary Insurance</strong></td>
</tr>
<tr>
<td><strong>Name</strong></td>
</tr>
<tr>
<td><strong>ID#</strong></td>
</tr>
<tr>
<td><strong>Group#</strong></td>
</tr>
<tr>
<td><strong>Address</strong></td>
</tr>
<tr>
<td><strong>City</strong></td>
</tr>
<tr>
<td><strong>State</strong></td>
</tr>
<tr>
<td><strong>ZIP</strong></td>
</tr>
</tbody>
</table>

| **Primary Insured Name** | Dick Bloomquist |
| **Relation to Patient** | father |
| **DOB** | 03-10-1967 |
| **Employer** | Wilton Bookstore |

I authorize the release of any information including diagnosis and treatment. I authorize my insurance carrier to pay directly to the doctor any benefits otherwise payable to me.

<table>
<thead>
<tr>
<th><strong>Secondary Insured Name</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relation to Patient</strong></td>
</tr>
<tr>
<td><strong>DOB</strong></td>
</tr>
<tr>
<td><strong>Employer</strong></td>
</tr>
</tbody>
</table>

I authorize the release of any information including diagnosis and treatment. I authorize my insurance carrier to pay directly to the doctor any benefits otherwise payable to me.

**Signature of patient (or parent of minor child):**

Dick Bloomquist

**Signature of patient (or parent of minor child):**

<table>
<thead>
<tr>
<th><strong>Physician signature:</strong></th>
<th>James Hahns, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SSN:</strong></td>
<td>900-00-9000</td>
</tr>
<tr>
<td><strong>NPI:</strong></td>
<td>0405674390</td>
</tr>
<tr>
<td><strong>Participating Provider for:</strong></td>
<td>Medicaid and all private insurance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Date of Service</strong></th>
<th>5-8-20XX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnosis</strong></td>
<td>Procedure</td>
</tr>
<tr>
<td>99283 Emergency Dept. Level 3</td>
<td>$187.00</td>
</tr>
</tbody>
</table>

| **Today’s Charge** | $187.00 |
| **Cash/Check** | $0.00 |
| **Balance** | $187.00 |
Name: Rebecca Bloomquist
DOB: June 25, 1997
Date of Service: May 8, 20XX

SUBJECTIVE
The patient presents to the emergency department with fever, chills, lethargy and loss of appetite for the past 2 days.

OBJECTIVE
Physical examination was significant for fever and decrease in body temperature and blood pressure. Hands and feet are cold to the touch. Urine culture, CBC and blood gasses are ordered. Patient is given IV fluid and oxygen.

ASSESSMENT
Lab results indicate gram-negative septicemia with systemic inflammatory response syndrome.

PLAN
Patient is admitted by her PCP for further treatment.
Step 5: Review Practice Exercise 24-1

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 6: Infectious and Parasitic Diseases (001-139), Part 2

Now that you’ve “gotten your feet wet” with some real coding practice on a number of different diseases, let’s continue learning about the diseases contained in Chapter 1 of your ICD-9-CM manual’s Tabular List.

Poliomyelitis and Other Non-Arthropod-Borne Viral Diseases and Prion Diseases of Central Nervous System (045-049)

This section focuses on viral diseases of the central nervous system that are not caused by parasites or infective organisms. Symptoms of these diseases are fever, sore throat, headache and vomiting, often with stiffness of the neck and back.

Code category 045 is another example of codes that require the fifth-digit subclassification. Turn to code category 045 in your ICD-9-CM. Under code 045 Acute poliomyelitis, you see a note that indicates you must submit a five-digit code for your code to be accurate for this code category. The fifth-digit indicates the poliovirus type.

Now let’s code nonparalytic poliomyelitis. To begin coding, you must determine the coding pathway. The main term is Poliomyelitis, and the subterm is nonparalytic. When you follow that coding pathway, you will find the tentative code 045.2 in Volume 2, the Index to Diseases. Now turn to 045.2 in the Tabular List to determine the highest level of specificity. The description is acute nonparalytic poliomyelitis, yet acute is not in the dictation. So is 045.2 the correct code?

First, think back to your coding pathway. Did you locate the main term and subterm correctly? Yes. Next, look at the terms under 045.2 Acute nonparalytic poliomyelitis and you will see Poliomyelitis (acute) listed. Do you remember those nonessential modifiers you learned about previously? The words in parentheses here are nonessential modifiers. They may or may not be in the dictation you receive, and they do not affect the code you assign. This means that code 045.2 is correct, but it is lacking the fifth-digit. Refer to the shaded box at the beginning of the 045 code group, and you’ll find the fifth-digit subclassification is 0 for poliovirus, unspecified type. You will assign 045.20 Acute nonparalytic poliomyelitis, poliovirus, unspecified type as the final code for this condition.

Viral Diseases Generally Accompanied by Exanthem (050-059)

Viral diseases accompanied by exanthem are diseases that cause skin rashes, such as smallpox, cowpox, chickenpox, herpes zoster, herpes simplex, measles and rubella. Here are a few quick facts about some of these diseases:

- **Variola major** is a form of smallpox known for its high mortality. This disease exists only in laboratories.
- **Cowpox** is a disease one contracts by milking infected cows.
- **Chickenpox** is also known as varicella.
- **Herpes zoster** is an infection that tends to cease after a definite period of time. It causes unilateral skin eruptions along affected nerves.
- **Rubella** is an acute but usually benign infection that causes fever, sore throat and rash.
You’ll find that most coding in this section is straightforward. Fourth and fifth digits are provided in the *Tabular List*. Be sure to review each tentative code to verify inclusions, exclusions and additional notes that will assist you.

**Arthropod-Borne Viral Diseases (060-066)**

The “Arthropod-borne Viral Diseases (060-066)” section focuses on diseases that parasites and infective agents cause. These are diseases such as yellow fever, mosquito-borne viral encephalitis, tick-borne viral encephalitis and *West Nile fever*. *West Nile fever* is mosquito-borne and may cause fatal inflammation of the brain, the lining of the brain or the lining of the brain and spinal cord.

Now see how quickly you can determine the correct code or codes for this sample dictation.

**SUBJECTIVE**
A 54-year-old male has just returned from a trip to Asia and complains of fever, headache, lethargy, conjunctivitis and lower back pain.

**OBJECTIVE**
Lab tests indicate serological detection of IgM and IgG antibodies.

**ASSESSMENT**
Sandfly fever.

**PLAN**
CDC (Center for Disease Control and Prevention) will be contacted for treatment.

To accurately code this condition, begin with the main term *Fever* in the *Index to Diseases*. Once you have located *Fever*, find *sandfly*, the subterm, for the tentative code 066.0. Then turn to the *Tabular List* and find this code to determine the highest level of specificity. You will assign as the correct code 066.0 Phlebotomus fever for the diagnosis of sandfly fever.

**Other Diseases Due to Viruses and Chlamydiae (070-079)**

The “Other Diseases Due to Viruses and Chlamydiae” section includes diseases such as viral hepatitis, rabies, warts and mumps. Viral hepatitis has several categories. *Hepatitis A* often is found in areas of poor hygiene and low socioeconomic standards. This form of hepatitis is transmitted via the fecal-oral route. *Hepatitis B* is transmitted through contaminated needles, syringes, instruments and blood products. This form of hepatitis also is spread by intimate contact. *Hepatitis C* is the most common form of post-transfusion hepatitis. *Hepatitis E*, also called *non-A and non-B*, usually is transmitted through contaminated water.

You will find the fifth-digit subclassification for codes 070.2 and 070.3 under the 070 *Viral hepatitis* heading. Turn to 070 in the *Tabular List* now, and look at the shaded fifth-digit subclassification box.

Let’s practice by looking up the diagnosis code for viral hepatitis B with a hepatic coma. You will find the main term *Hepatitis* in the *Index to Diseases*. Once you have located the main term, find the subterms *viral* and *type B*. But your search is not complete yet! Once you have located the subterms *with* and *hepatic coma*, you are provided the tentative code of 070.20. You then turn to the *Tabular List* to determine the highest level of specificity. You will assign code 070.20 *Viral hepatitis B with hepatic coma, acute or unspecified, without mention of hepatitis delta.*
Rickettsioses and Other Arthropod-Borne Diseases (080-088)

*Rickettsia* is a type of parasitic organism. These organisms multiply by invading the cells of another life form, usually arthropods (lice, fleas, ticks and mites). These arthropods can then transmit rickettsiae to rodents, dogs and even humans through saliva from a bite or feces being deposited on a small break in the skin. The codes in this section are fairly simple; but do note that when you look in this section of the *Tabular List*, you will find instructions to use codes 060.0 through 066.9 for arthropod-borne viral diseases instead of the codes you find in this section. If you have a hard time understanding anything in this section, call your instructor. Remember, we want you to succeed, and your instructor will be available to answer your questions!

Use of the *ICD-9-CM* manual gets easier with practice. The more you use the volumes and learn to recognize additional information, the easier diagnostic coding becomes! Now let's take a few minutes to review the sections you just studied.

**Step 7: Practice Exercise 24-2**

Determine the correct ICD-9-CM code(s) for the following conditions.

1. **Viral encephalitis**
   ICD-9-CM code:

2. **Varioloid**
   ICD-9-CM code:

3. **Measles with otitis media**
   ICD-9-CM code:

4. **German measles**
   ICD-9-CM code:

5. **West Nile fever**
   ICD-9-CM code:

6. **Diagnosis: Rabies**
   ICD-9-CM code:

7. **Hand, foot and mouth disease**
   ICD-9-CM code:

8. **Lyme disease**
   ICD-9-CM code:
9. ICD-9-CM Coding Challenge

SUBJECTIVE
Two weeks ago this 7-year-old female presented with a low-grade fever, headache and stuffy nose lasting three days. A couple of days after symptoms subsided, patient noticed a bright red rash on her face. Patient now presents with similar rash on trunk, arms and legs, times one week.

OBJECTIVE
Physical examination reveals net-like rash on face, trunk, arms and legs.

ASSESSMENT
Patient has fifth disease.

PLAN
Plenty of bed rest. Drink lots of clear fluids and take acetaminophen as needed to reduce fever. Call office if rash does not begin to clear within 10 days.

ICD-9-CM code:

Step 8: Review Practice Exercise 24-2

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 9: Infectious and Parasitic Diseases (001-139), Part 3

This is the final section in Chapter 1 of the ICD-9-CM manual's Volume 1, the Tabular List. So read on, and let's finish the diseases in this chapter!

Syphilis and Other Venereal Diseases (090-099)

Syphilis is a chronic infectious disease usually transmitted through sexual contact. Untreated syphilis progresses through three clinical stages: primary, secondary and tertiary. In the primary stage of syphilis, a painless lesion appears. The secondary stage produces widespread lesions. The tertiary stage produces destructive lesions that involve many organs and tissues.

If you turn to “Syphilis and Other Venereal Diseases (090-099)” in the Tabular List, you'll find that this section EXCLUDES nonvenereal endemic syphilis, stating that you should use code 104.0 instead; it also EXCLUDES urogenital trichomoniasis, stating you should use code 131.0 instead.
Turn again to your *ICD-9-CM* manual for some coding practice in this section, using the following dictation sample:

**SUBJECTIVE**  
A 19-year-old female is seen in the emergency department complaining of a sore on her buttocks. Sore was noted about 13 days ago.

**OBJECTIVE**  
Anus was examined. Blood tested positive for syphilis.

**ASSESSMENT**  
Primary anal syphilis.

**PLAN**  
Patient discharged with prescription for antibiotics.

As the healthcare document specialist, you begin with the main term *Syphilis* in the *Index to Diseases*. The subterms *anus* and *primary* will direct you to 091.1 as the tentative code. To determine the highest level of specificity, locate that code in the *Tabular List*. Based on what you find there, you can then assign code 091.1 *Primary anal syphilis* as the accurate code.

### Other Spirochetal Diseases (100-104)

A *spirochete* is a spiral-shaped bacterium that causes diseases such as *leptospirosis*, *yaws* and *pinta*.  
**Leptospirosis** is a rare disease where the spirochete is harbored by rodents and excreted in their urine. After about one to three weeks, there is an acute illness with fever, chills, an intense throbbing headache, severe muscle aches, eye inflammation and a skin rash. The kidneys are severely affected, and there is jaundice due to liver damage. **Yaws** is an infection that mainly affects the skin and bones. It is found throughout the poorer subtropical and tropical areas of the world. It is almost always acquired by children. After about three or four weeks following infection, an itchy, raspberry-like growth appears. Scratching spreads the infection. **Pinta** occurs in some remote villages in tropical America. It is unknown how the disease is spread. Small spots surrounding a large spot appear on the face, neck, buttocks, hands or feet. About one to twelve months later, red skin patches appear. They eventually turn blue, then brown and finally white.

Although the codes in this section are not used much because these diseases are rarely seen, be sure to call your instructor if you have any questions as you read through the details about them in your coding manual.

### Mycoses (110-118)

*Mycoses* are diseases such as *dermatophytosis*, *candidiasis*, *coccidioidomycosis* and others that are caused by a fungus. **Dermatophytosis** is a common fungal infection of the skin, hair and nails. **Candidiasis** is a fungal infection usually found in the mucous membranes or on moist skin. **Coccidioidomycosis** is caused by inhalation of dust particles that contain arthrospores. This disease is a self-limiting respiratory infection, and the primary form is known as *San Joaquin fever*, *desert fever* or *valley fever*.

Many do not discover they suffer from mycoses until diseases such as those just mentioned are activated because of the fungus.
The Tabular List instructs you to use additional codes to identify the manifestations of the diseases in this section. You'll recall that manifestations are signs of a disease, or the outward expressions of an underlying condition.

Let's work through an example. As the healthcare document specialist for a pediatrician, you have the following situation to code:

An office visit takes place for an established patient with oral thrush. A detailed history and problem focused examination are documented. The pediatrician prescribes antifungal agent for oral thrush and instructs the patient to return if the problem persists.

Open your ICD-9-CM manual to the main term Thrush in the Index to Diseases. The subterm oral has no effect on the tentative code 112.0. Determine the highest level of specificity for this code in the Tabular List. Note that the description for code 112.0 Candidiasis, Of mouth is appropriate because thrush (oral) is included in that description. Therefore, you assign code 112.0 as the correct code.

How are you doing by this point? Are you beginning to automatically move through the steps of identifying the main term and subterm? Are you then using these terms to locate the condition in the Index to Diseases, and then going to the Tabular List to determine the degree of specificity and confirm the accuracy of the tentative code you've selected? If the process doesn't feel quite automatic yet, be patient—it's only a matter of time until you'll be coding more easily, without having to think about each step you take.

Helminthiases (120-129)

Helminthiases are infections associated with worms. Diseases of this section include tapeworms, hookworms and other intestinal parasites. For example, echinococcosis is an infection caused by larval forms of tapeworms. Direct contact with infected feces transmits this disease. Most people with echinococcosis are asymptomatic until cysts are formed, which then cause pain, occlusion or organ dysfunction.

Other Infectious and Parasitic Diseases (130-136)

Diseases of this section are toxoplasmosis, scabies and sarcoidosis. As the title suggests, these diseases are either contagious or the result of parasites. Some examples of parasites that can cause diseases in these code groups are lice, mites and fleas.

For our coding example in this section, let's code trichomonal urethritis. To begin your search for the accurate code, once again start with the Index to Diseases. To find the main term, remember to ask yourself, “What is the problem?” The problem is urethritis, so locate Urethritis in the alphabetical index. Next, ask yourself, “What type of urethritis does the physician say it is?” If you answered trichomonal, you're on the right track! Under Urethritis in the index, find trichomonal. The Index to Diseases indicates the tentative code is 131.02. Determine the highest level of specificity of this code in the Tabular List. Based on the information there, you can confidently assign 131.02 Trichomonal urethritis as the correct code for this condition.
Late Effects of Infectious and Parasitic Diseases (137-139)

Remember that using the term *late effects* indicates that an infection no longer is present. Do you remember learning about late effects in a previous lesson? If a residual condition was documented with the late effect, you would code that condition first, and then the late effect. Turn to code groups 137, 138 and 139 in your manual, and be sure to read the notes associated with each group before you complete the Practice Exercise for this section.

**Step 10: Practice Exercise 24-3**

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Early cardiovascular syphilis
   ICD-9-CM code:

2. Acute gonococcal cystitis
   ICD-9-CM code:

3. Fungal infection of the foot
   ICD-9-CM code:

4. Desert fever
   ICD-9-CM code:

5. Hookworm disease
   ICD-9-CM code:

6. Diagnosis: Norwegian scabies
   ICD-9-CM code:
Use the following information to complete the CMS-1500 that follows:

### 7. ICD-9 Coding/Billing Challenge

<table>
<thead>
<tr>
<th>James Hahns, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>800 Medical Court</td>
</tr>
<tr>
<td>Youtown, CO 80000</td>
</tr>
<tr>
<td>(970) 555-2222</td>
</tr>
</tbody>
</table>

**Patient Information**
- **Name**: Benjamin Fox
- **Date of Birth**: 12/2/70
- **Sex**: male
- **Marital Status**: single
- **Address**: 1227 Comet Drive Apt 6B
- **City**: Springtown
- **State**: CO
- **ZIP**: 80002
- **Home Phone**: 970-555-1001

**Employment Information**
- **Name of Employer**: Philco Gas
- **Occupation**: Driver
- **If Minor, Name of School**

**Insurance Information**
- **Primary Insurance**
  - **Name**: Mountain States
  - **ID#**: 520 00 7777
  - **Group#**: 120
  - **Address**: 1801 SW Vine St
  - **City**: Denver
  - **State**: CO
  - **ZIP**: 80217
  - **Primary Insured Name**: Benjamin Fox
  - **Relation to Patient**: Self
  - **Employer**: Philco Gas

- **Secondary Insurance**
  - **Name**:
  - **ID#**
  - **Group#**
  - **Address**
  - **City**
  - **State**
  - **ZIP**
  - **Secondary Insured Name**
  - **Relation to Patient**
  - **Employer**

I authorize the release of any information including diagnosis and treatment. I authorize my insurance carrier to pay directly to the doctor any benefits otherwise payable to me.

**Physician signature**: James Hahns MD

**SSN**: 900-00-9000
**NPI**: 0405674390

**Participating Provider for**: Medicaid and all private insurance

<table>
<thead>
<tr>
<th>Date of Service</th>
<th>6/14/XX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td></td>
</tr>
<tr>
<td>Procedure</td>
<td>99213 Established Patient Level 3</td>
</tr>
<tr>
<td>Charge</td>
<td>$63.00</td>
</tr>
</tbody>
</table>

| Today's Charge  | $63.00  |
| Cash/Check      | $0.00   |
| Balance         | $63.00  |
Name: Benjamin Fox  
DOB: December 2, 1970  
Date of Service: June 14, 20XX

CHIEF COMPLAINT  
The patient comes for a routine follow-up appointment.

HISTORY OF PRESENT ILLNESS  
This is a middle-aged African American male who comes today for routine follow-up. He has no acute complaints. No neurological deficits or other specific problems. The patient denies any symptoms associated with opportunistic infection.

PAST MEDICAL HISTORY  
Immunizations: Up to date.  
Current medications: (1) He is on Trizivir 1 tab p.o. b.i.d. (2) Ibuprofen over the counter p.r.n.  
Medication compliance: The patient is 100% compliant with his meds. He reports he does not miss any doses. Drug intolerance: There is no known drug intolerance in the past. Illnesses: (1) Significant for HIV. (2) Chronic hepatitis. (3) PPD status was negative in the past. PPD will be placed again today. Treatment adherence counseling was performed by both nursing staff and myself. Again, the patient is 100% compliant with his meds. Last dental exam was in 11/07, where he had 2 teeth extracted. ALLERGIES: HE HAS NO KNOWN DRUG ALLERGIES.  
Nutritional status: The patient eats regular diet and eats 3 meals a day.  
Sexual history: He has had no recent STDs, and he is not currently sexually active.  
Mental health and substance abuse: No history of substance abuse.

REVIEW OF SYSTEMS: Noncontributory except as mentioned in the HPI.

PHYSICAL EXAMINATION  
GENERAL: This is a thinly built male, not in acute distress.  
VITAL SIGNS: Blood pressure 132/89 and pulse of 82.  
HEART: Heart sounds S1 and S2 regular. No murmur.  
LUNGS: Clear bilaterally to auscultation.  
ABDOMEN: Soft and nontender with good bowel sounds.  
NEUROLOGIC: He is alert and oriented x 3 with no focal neurological deficit.  
EXTREMITIES: Peripheral pulses are felt bilaterally. He has no pitting pedal edema, clubbing or cyanosis.  
GENITALIA: Examination of external genitalia is unremarkable. There are no lesions.

DATABASE  
Most recent labs show hemoglobin and hematocrit of 16 and 46. Creatinine of 0.6. LFTs within normal limits. Viral load of less than 48 and CD4 count of 918.
ASSESSMENT
1. Human immunodeficiency virus, stable on Trizivir.
2. Chronic hepatitis C, stable.

PLAN
Continue his current meds. I have discussed with him in the past about possibility of having to change off of his Trizivir in the future, if he develops resistance, since triple NRTI therapy is not the preferred, but he is not amenable to that at this time. He has excellent viremic control and good CD4 count. We will readdress this with him in the future if his status changes. The patient is to have PPD placed today. He has received his annual influenza vaccination for this season. He will be seen again by the dental clinic for routine evaluation and have labs today including CD4, viral load, RPR, and urinalysis. He will return to our clinic in 6 months. The patient does not want to be seen more often since he has a job that he reports to and cannot miss more days off work. Again this is acceptable since he has excellent viremic control. The patient has been educated regarding his meds and plan. His prognosis is excellent, and he will follow up with us in 6 months.
Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 11: Review Practice Exercise 24-3
Step 12: Neoplasms (140-239)

All neoplasms are classified in Chapter 2 of the ICD-9-CM manual’s Tabular List. The following sections are included there:

- 140-195 Malignant neoplasms, stated or presumed to be primary, of specified sites, except of lymphatic and hematopoietic tissue
- 196-198 Malignant neoplasms, stated or presumed to be secondary, of specified sites
- 199 Malignant neoplasms, without specification of site
- 200-208 Malignant neoplasms, stated or presumed to be primary, of lymphatic and hematopoietic tissue
- 209 Neuroendocrine tumors
- 210-229 Benign neoplasms
- 230-234 Carcinoma in situ
- 235-238 Neoplasms of uncertain behavior
- 239 Neoplasms of unspecified nature

In the ICD-9-CM manual, neoplasms are classified according to the following:

1. **Behavior of the neoplasm**, such as malignant or benign
2. **Anatomical site involved**, such as lung, brain or stomach
3. **Morphology type**, such as leukemia, melanoma or adenocarcinoma

Let’s look at each in more detail.

### Classification by Behavior

The term **neoplasm** refers to any new and abnormal growth. The following definitions describe the behavior of specific neoplasms:

**Malignant**—Malignant neoplasms are collectively referred to as cancers.

**Primary**—This term refers to the site at which a neoplasm originated.

**Secondary**—This term refers to the site or sites to which the neoplasm has spread from the primary site.

**In Situ**—This term describes the situation when the tumor cells are undergoing malignant changes but still are confined to the point of origin without invasion of the surrounding normal tissue.

**Benign**—This term refers to noncancerous growths. In benign neoplasms, growth does not invade adjacent structures or spread to distant sites, but it might displace or exert pressure on adjacent structures.

**Uncertain Behavior**—This term refers to tumors that the pathologist cannot classify as benign or malignant because some features of each type are present.
Unspecified Nature—This term refers to tumors in which neither the behavior nor the histological type are specified in the diagnosis.

The Neoplasm Table is in Volume 2, *Index to Diseases*, under the main term Neoplasm. This table includes seven columns, with the first column listing the anatomical sites in alphabetic order. The remaining six columns identify the behavior of the neoplasm. The first three columns include codes of Malignant neoplasms and are further classified as Primary, Secondary and Ca in Situ, which stands for Carcinoma in Situ. The fourth column identifies codes for benign neoplasms. The last two columns include codes for neoplasms of Uncertain Behavior or of Unspecified type.

Classification by Primary Site

The primary site is defined as the tumor’s point of origin. In some cases, the physician cannot identify the primary site; in these cases, the code 199.1 is provided for unknown site or unspecified. You can assign this code whether the site is primary or secondary in nature.

When adjunct chemotherapy or radiotherapy follows surgical removal of a primary-site malignancy, you assign the malignancy code as long as chemotherapy or radiotherapy is actively administered. If a primary malignant neoplasm that previously was removed by surgery or eradicated by radiotherapy or chemotherapy reoccurs, you assign the primary malignant code for that site unless the *Index to Diseases* directs you otherwise.

The terms metastasis and direct extension both are classified as secondary malignant neoplasms in the *ICD-9-CM* manual. Cancer described as metastatic to a specific site is interpreted as a secondary neoplasm of that site. We’ll discuss this in more detail shortly.

Classification by Morphology Type

The morphology type of a neoplasm is determined based on looking at abnormal cells from different parts of the body in a microscope and naming and classifying those cells according to their original tissue type. Such classification is possible because most benign tumors and many malignant ones retain some microscopic features of their original tissue. Tumors are named according to the cell type they resemble most.

The codes in this chapter of the *ICD-9-CM* book do not include personal or family history of malignant neoplasms. Personal history of a malignant neoplasm means that the past medical condition no longer exists, and the patient is not receiving any treatment. Family history codes are used when a patient has a family member who had a particular disease, which causes the patient to be at higher risk for contracting the disease. These instances are coded from the V10 and V16 categories instead.

Malignant Neoplasms (140-208)

Malignant neoplasms often become progressively worse and can eventually result in death. These neoplasms are cancers. Malignant neoplasms are grouped into the behavioral categories of primary, secondary and carcinoma in situ. You’ll remember that primary refers to the site at which the neoplasm originated. Secondary refers to the site to which the primary site has spread. Carcinoma in situ refers to tumor cells that are confined to the site of origin and have not invaded the surrounding normal tissue. You also may see the terms metastasis and direct extension when you are classifying a secondary malignant neoplasm.
**Metastasis** is the transfer of a disease from one organ or part to another organ or part not directly connected with it. Only malignant tumor cells have the capacity to metastasize. Malignant cells can spread through the body very quickly. The three main pathways they use are the lymph nodes, the blood and the surface of body cavities. If a person has lung cancer that has metastasized to the brain, the primary malignant neoplasm is the lung, and the secondary malignant neoplasm is the brain. It is possible to have a secondary neoplasm with the primary site unknown.

Let's code for a patient being treated for a secondary malignant neoplasm of the lymph gland located in the leg, with the primary site unknown. First, code the secondary neoplasm as the treatment is directed toward that site. Use the Neoplasm Table, found in the *Index to Diseases*, under the main term *Neoplasm*. Locate lymph, gland, leg and then move to the *Malignant, Secondary* column for the tentative code of **196.5**. Now, code the primary neoplasm. Locate the subterms *unknown site or unspecified* in the Neoplasm table (you are no longer under the subterm lymph) then move to the *Malignant, Primary* column. The tentative code is **199.1**. Turn to the *Tabular List* to determine the highest level of specificity for both codes. You will then assign **196.5 Secondary and unspecified malignancy neoplasm of lymph nodes, Lymph nodes of inguinal region and lower limb**, as well as coexisting condition **199.1 Malignant neoplasm without specification of site, Other**.

The morphological names for malignant neoplasms come from the names of the cell type, with the suffix -sarcoma added. For example, fibrosarcoma is a malignant neoplasm derived from fibrous tissue. Chondrosarcoma is a malignant neoplasm of cartilage cells. Liposarcoma is a malignant neoplasm of adults that occurs in the tissues and the thigh.

Of course, you don't need to memorize these meanings because the *Index to Diseases* assists you when you’re using these morphological classifications to code. For example, open your ICD-9-CM manual to the index and locate Fibrosarcoma. The manual directs you to see also Neoplasm, connective tissue, malignant. You will then use the Neoplasm Table to locate connective tissue NEC. Unless otherwise stated, the malignant neoplasm is primary. Move to the *Malignant, Primary* column for the tentative code **171.9**, and then check this code in the *Tabular List* to determine the highest level of specificity.

Let's make sure you have the general idea of everything you've just read. One form of malignant tumor is known as *Kaposi's sarcoma*, which is a dermal tumor made up of blood vessels and vascular tissue cells. These tumors are red due to the leakage of blood at the surface of the skin. They multiply rapidly and can cover the entire surface of the body. Kaposi’s sarcoma is an eponym, named for a person. Remember learning about eponyms in previous lessons? To locate the code for Kaposi's sarcoma in the *Index to Diseases*, find the main term Kaposi’s. The subterm sarcoma indicates that the code **176.9** would be the tentative code for this condition. As always, determine the highest level of specificity in the *Tabular List*.

**Neuroendocrine Tumors (209)**

Neuroendocrine tumors affect hormone-producing cells, present throughout the nervous and endocrine systems. Most neuroendocrine tumors are not able to be described as a specific type of cancer, therefore are termed carcinoid tumors. Carcinoid tumors are a slow-growing type of cancer that can arise in several places throughout your body, usually in the gastrointestinal tract (appendix, stomach, small intestine, colon, rectum) and in the lungs.
The American Cancer Society defines carcinoid as the following:

“Like most cells of the body, gastrointestinal system neuroendocrine cells sometimes undergo certain changes that cause them to grow too much and form tumors. The tumors that develop from neuroendocrine cells are known as neuroendocrine tumors (or neuroendocrine cancers). There are many varieties of neuroendocrine tumors, but the most common are the carcinoid tumors or carcinoids.”

Carcinoid tumors act like the cells they come from. They often release certain hormone-like substances into the bloodstream. In about 10 percent of people, the carcinoid tumors spread and grow very large and release high amounts of those hormones. These cause symptoms such as facial flushing (redness and warm feeling), wheezing, diarrhea and a fast heartbeat. These symptoms are grouped together and called the carcinoid syndrome. Most cancers cause symptoms only in the organs they start in or spread to. But carcinoid tumors can release substances into the blood that cause symptoms throughout the body.

Turn in your Tabular List to code 209.3. This code specifies the neuroendocrine tumor is poorly differentiated. Poorly differentiated tumors are rare, fast growing and, therefore, highly malignant.

**Benign Neoplasms (210-229)**

Benign neoplasms are noncancerous growths. These growths do not invade adjacent structures or spread to distant sites, but they might displace or exert pressure on adjacent structures. Benign tumors always remain localized and never metastasize.

To understand the morphological classification of benign neoplasms, refer to your medical terminology lessons. The suffix -oma is a word part that means “tumor” or “neoplasm.” For example, adenoma is a benign neoplasm of epithelial cells. Again, you do not need to memorize such terms because the Index to Diseases is available to assist you. When you look up the main term Adenoma in the index, you are directed to see also Neoplasm, by site, benign. This cross-reference instructs you to turn to the Neoplasm Table and locate the site and then find the correct code in the Benign column.

Let's say you are given the diagnosis of papilloma of the larynx. First, locate the main term Papilloma in the Index to Diseases. Note that you are directed to see also Neoplasm, by site, benign. Again, turn to the Neoplasm Table and locate larynx NEC. Once you find the term, move to the Benign column to determine that code 212.1 is the tentative code for papilloma of the larynx. Check the code 212.1 in the Tabular List to determine the highest level of specificity and assign that code.

Now that we have described benign and malignant tumors, compare the difference in the tumor types in the following illustrations.

![A Benign tumor](image1)

- Intact skin surface
- Expansile growth
- Capsule
- Homogeneous cut surface

![B Malignant tumor](image2)

- Invasive growth
- Ulceration of skin
- Lymphatic invasion
- Inhomogeneous cut surface
- Necrosis
- Hemorrhage
- Vessel invasion
Carcinoma in Situ (230-234)

_In situ_ describes tumor cells that are undergoing malignant changes but are still confined to the site of origin without invasion of surrounding normal tissue. The physician will specifically state the behavior of the neoplasm as being _in situ_ if you are to code this type.

Neoplasms of Uncertain Behavior (235-238)

Now, let's turn to code 235 in the _Tabular List_. There, you'll see a note for code categories 235 through 238. The note under the title of this section tells you that the codes _classify by site certain histomorphologically well-defined neoplasms_ whose subsequent behavior _cannot be predicted from the present appearance_. You should be aware that this note means you must assign the code of uncertain behavior for tumors that the pathologist cannot classify as benign or malignant because some features of each type are present. Review the code categories in this section, and notice the various _INCLUDES_ and _EXCLUDES_, as well as those codes that require fourth- and fifth-digit classifications.

Take a look at the following operative report and see whether you can identify the correct code or codes for the indicated diagnosis.

PREOPERATIVE DIAGNOSIS
Mass on right breast.

POSTOPERATIVE DIAGNOSIS
Breast neoplasm of uncertain behavior.

PRIMARY PROCEDURE
BREAST BIOPSY.

INDICATIONS FOR PROCEDURE
A 40-year-old female presents with mass on the right breast. Review of recent mammogram indicates the mass is in the upper-outer quadrant.

PROCEDURE
A large-gauge needle is inserted through the skin of the breast into the mass. The needle is removed with the core of breast tissue. Pressure is applied for bleeding. The sample was sent to the pathologist, who was unable to classify the mass as benign or malignant.

To code this operative report, begin at the Neoplasm Table in the _Index to Diseases_. Locate _breast_ in this table, and then move to the _Uncertain Behavior_ column, where you’ll find the tentative code of _238.3_. Once you have determined the highest level of specificity in the _Tabular List_, you can comfortably assign _238.3 Neoplasm of uncertain behavior of other and unspecified sites and tissues, Breast_ for this report.

Neoplasms of Unspecified Nature (239)

_Unspecified nature_ refers to tumors in which neither the behavior nor the histological types are specified in the diagnosis. Turn to the _Tabular List_ to read the note found for code 239. Notice that the note refers to _neoplasms of unspecified morphology and behavior_. To help you code conditions in this group, keep in mind that the words _histology_ and _histological_ mean the same thing as do _morphology_ and _morphological_.

Exceptions and Clarifications

You should be aware of some important exceptions to the rules we’ve discussed for codes included in Chapter 2 of the Tabular List. For example, not all tumors that end in -oma are benign, and not all malignant tumors are labeled as carcinomas or sarcomas. An important example of this exception is lymphoma, a malignant tumor of lymphoid cells. However, there is no need to memorize this information because the Index to Diseases will guide you when you are searching for these main terms.

Step 13: Practice Exercise 24-4

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Recurrent glioma of cerebrum
   ICD-9-CM code:

2. Metastatic carcinoma of the brain from the lung
   ICD-9-CM code:
   ICD-9-CM code:

3. Hodgkin sarcoma
   ICD-9-CM code:

4. Benign neoplasm scalp
   ICD-9-CM code:

5. Fibromyoma of the uterus
   ICD-9-CM code:

6. ICD-9-CM Coding Challenge
   PATHOLOGY REPORT
   SPECIMEN: Biopsy, lesser curvature.
   DATE COMPLETED: June 7, 20XX
   GROSS DESCRIPTION: Multiple fragments pale tan tissue, measuring 1 x 0.6 x 0.3 cm in aggregate.
   MICROSCOPIC/DIAGNOSIS: Gastric biopsy: Adenocarcinoma.
   ICD-9-CM code:

Step 14: Review Practice Exercise 24-4

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 15: Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders (240-279)

Chapter 3 of the Tabular List focuses on diseases and disorders of the endocrine system, nutritional deficiencies and disorders and disturbances of the metabolic and immunity systems. When these systems are off balance, the body is affected. We will discuss items such as hyperplasia, diabetes, Cushing’s syndrome and anemia.

First, let’s look at this chapter in the Tabular List to become familiar with the inclusions, exclusions and additional notes provided. Next to EXCLUDES under the chapter title, you see that you should use codes 775.0 through 775.9 for endocrine and metabolic disturbances specified to the fetus and newborn. There also is a note stating that all neoplasms, whether functionally active or not, are classified in Chapter 2. Codes in Chapter 3, that is, codes 242.8, 246.0, 251 through 253, and 255 through 259 may be used to identify such functional activity associated with any neoplasm, or by ectopic endocrine tissue.

Now, let’s talk about each of this chapter’s four sections.

Disorders of Thyroid Gland (240-246)

The thyroid gland is one of the endocrine glands, and it is normally situated in the lower part of the front of the neck. The thyroid gland has two lobes, one on either side of the trachea. This gland secretes and stores thyroid hormones. Inadequate iodine levels often cause an enlarged thyroid gland.

In this section of the Tabular List, you will find EXCLUDES to assist you in selecting the correct code. For example, in category 241 Nontoxic nodular goiter, you are instructed to use category 226 instead for adenoma of thyroid and cystadenoma of thyroid. Category 242 EXCLUDES neonatal thyrotoxicosis. Category 242 also requires a fifth-digit subclassification. If you were to submit 242.0 for toxic diffuse goiter, your code would be invalid until you applied the proper fifth digit.

Diseases of Other Endocrine Glands (249-259)

This section includes secondary diabetes mellitus, primary diabetes mellitus, disorders of the parathyroid and pituitary glands and other endocrine disorders.

Diabetes mellitus is a chronic syndrome of insufficient insulin production that leads to the body’s inability to metabolize carbohydrates, protein and fat. This disease is genetic, but its development also depends on the individual’s environment, including diet, weight and exercise habits. Diabetes mellitus occurs in two major forms: type 1 and type 2. It is important that coders do not take the patient’s age or the fact that insulin is documented when determining the final digit for diabetes. Documentation must specifically note “type 1” or “type 2” for consideration. If the type of diabetes is not documented, you should check with the physician for clarification. If the type can still not be documented, you will code to unspecified. Long-term complications of the disease involve the kidneys, nerves, blood vessels and eyes. Diabetes also is identified as controlled or uncontrolled. For a diagnosis to be coded as uncontrolled, the physician must specifically document it as such. We will discuss how to use this information to determine codes when we look through the Tabular List.
Secondary diabetes mellitus is defined as a diabetic condition not as a result of genetics or environmental conditions. Sometimes, determining primary or secondary diabetes may be a challenge; however, the major differentiating factor of secondary diabetes is the presence of another underlying condition that is determined to be the cause of the diabetes. For instance, a patient may develop secondary diabetes when pancreatic tissue is destroyed by chronic pancreatitis.

You will find reporting and sequencing issues addressed in the Coding Guidelines in the front of your ICD-9-CM.

Now, open your ICD-9-CM manual to the Tabular List to review the fifth-digit subclassification of code 250 Diabetes mellitus. The fifth-digit 0 indicates type 2 or unspecified type, not stated as uncontrolled. Use 0 as the final digit when the physician documents type 2 diabetes or does not state the type.

If it is documented that a type 2 diabetic patient uses insulin on a long-term basis, code V58.67 Long-term (current) use of insulin will also be assigned. You will not use code V58.67 if insulin is given temporarily to a type 2 diabetic patient to bring their diabetes under control. Remember, you will learn more about using V codes in a later lesson.

The fifth-digit 1 indicates type 1 [juvenile type], not stated as uncontrolled. Use 1 as the final digit when the physician documents type 1 diabetes.

**Controlled and Uncontrolled Diabetes**

A patient with a diagnosis of controlled diabetes has acceptable blood sugar levels in their blood. Uncontrolled diabetes may be documented when according to the patient’s current treatment regimen, the blood sugar levels are not acceptable. You will use the fifth-digits 2 and 3 only when uncontrolled is clearly documented. Documenting the blood sugar level is not within an acceptable level or the insulin requires adjusting is not “uncontrolled.” In other words, if you do not see “uncontrolled” in the dictation, you will not use 2 or 3 as the fifth digit. The fifth-digit would be 2 when uncontrolled is documented with type 2 or when the type is not specified. You will use the fifth-digit 3 when uncontrolled and type 1 diabetes is documented.

Let’s use your ICD-9-CM book to code the disease you’ve just learned so much about. A type 2 diabetic patient with long-term insulin use is diagnosed with ketoacidosis. Begin your search for the accurate code in the Index to Diseases. To determine the main term, ask yourself “what is the problem?” The problem is the ketoacidosis. Once you find Ketoacidosis in the index, locate the subterm diabetic, and you will find the tentative code 250.1. If you stop there, you will not have the correct code because you haven’t attended to the fifth-digit subclassification box. Turn to code 250.1 in the Tabular List to determine the highest level of specificity. The description of diabetes with ketoacidosis is correct. Now, refer to the top of this category for the fifth digit. You will use the fifth-digit 0 to indicate type 2, not stated as uncontrolled. Be sure to read the notes in the 250 category. You are directed to use an additional code for associated long-term insulin use with V58.67. It is documented that the patient uses insulin on a long term basis, so this code would apply. The final codes for this situation are 250.10 Diabetes with ketoacidosis, type 2, not stated as uncontrolled and V58.67 Long-term (current) use of insulin.

You know that conditions can cause diabetes, resulting in secondary diabetes; however, diabetes can cause the manifestation of other diseases as well. Turn to the Tabular List and locate codes 250.4 through 250.8. These subcategories are for diabetes with manifestations, and below each category you are instructed to use an additional code to identify the manifestation. You must assign both codes to fully describe the condition, and the codes must be sequenced in the order listed in the manual.
Diabetes is a challenging disease to code, so let’s try another example. This time, let’s code a patient with manifestations resulting from the diabetes. You are the healthcare document specialist for an ophthalmologist, and you must code the following dictation:

**SUBJECTIVE**
A 64-year-old male with a history of type 1 diabetes complains of cloudy, obstructed vision.

**OBJECTIVE**
Exam of the eye reveals snowflake shaped opacity.

**ASSESSMENT**
The physician determines the patient has diabetic cataracts and suggests outpatient surgery.

**PLAN**
The extracapsular cataract is removed with insertion of an intraocular lens. The patient is instructed to return for follow-up treatment.

The patient complains of cloudy, obstructed vision, but you don’t code symptoms when a final diagnosis is provided. The physician’s assessment revealed diabetic cataracts to be the problem. So, is the main term the diabetes or the cataracts? To find out, let’s use Cataract as the main term and turn to the Index of Diseases. Once you have located the main term, you’ll look for the subterm diabetic. So the tentative codes are 250.5 [366.41]. (Remember that the slanted brackets indicate the manifestation of the underlying condition.) Now, what if diabetes is the main term? Locate Diabetes as the main term in the index, with cataract as the subterm. What do you see? The tentative codes listed are 250.5 [366.41]. So you see that there is more than one way to the correct code.

Now let’s go back to the manual and search for the final codes for this example. You know from the information you just read about coding manifestations that you must use both codes and sequence them in the order listed. Turn to code 250.5 in the Tabular List to determine the highest level of specificity. It is documented that the patient has type 1 diabetes, and the disease is not stated as uncontrolled. Therefore, you would assign codes 250.51 Diabetes with ophthalmic manifestations, type 1 [juvenile type], not stated as uncontrolled and 366.41 Diabetic cataract for this scenario. You will use code 366.41 without recording the brackets.

Now that you have a basic understanding of diabetes, let’s move on by looking at the Tabular List for other notes in this section. The section lists many INCLUDES and EXCLUDES. We will discuss some of those here, but be sure to read this area closely on your own, as well.

Many codes in category 251 EXCLUDES conditions related to diabetes mellitus and suggest other codes. For example, subcategories 251.0 and 251.1 indicate the need for an E code to identify the cause if the condition is drug induced.

**Cushing’s syndrome**, another disease included in this section, is a syndrome that causes fatty tissue of the face, neck and body. Note in the Tabular List that, for code 255.0 Cushing’s syndrome, you are instructed to use an additional E code to identify the cause if the condition is drug-induced. We will discuss E codes and how they are used later on in this course.
ICD-9-CM Coding—From Infections to Blood Diseases

**Nutritional Deficiencies (260-269)**

This section covers diseases or conditions that are caused by a lack of protein and vitamins and other nutritional deficiencies. Under the heading "Nutritional Deficiencies (260-269)" in the Tabular List, note that you are to use codes 280.0 through 281.9 for deficiency anemias. Code 263.9 Unspecified protein-calorie malnutrition **EXCLUDES** code 269.9, which would be more appropriate for an unspecified nutritional deficiency. And codes 266.1 Vitamin B₆ deficiency and 266.2 Other B-complex deficiencies direct you to other codes, as well. You also can see that code 269.0 Deficiency of vitamin K **EXCLUDES** deficiency of coagulation factor due to vitamin K deficiency (286.7) and vitamin K deficiency of a newborn (776.0).

Carefully read through the following report, thinking about how you would determine the correct codes for the diagnosis.

**Operative Report**

**PREOPERATIVE DIAGNOSIS**
Suspect osteomalacia.

**POSTOPERATIVE DIAGNOSIS**
Biopsy sample confirms osteomalacia.

**PRIMARY PROCEDURE**
BONE BIOPSY.

**INDICATIONS FOR PROCEDURE**
A 52-year-old female presents with pain and tenderness in hip area as well as overall weakness. Review of x-ray suggests signs of osteomalacia.

**PROCEDURE**
Local anesthesia applied to procedure site. A small incision is made in the skin, and a biopsy needle is pushed and twisted into the bone. Once the bone sample is obtained, the needle is removed. Pressure is applied to biopsy site for several minutes. No excess bleeding is noted. Site is covered with gauze patch and secured.

To locate the code for this condition, open your ICD-9-CM manual to the Index to Diseases, and then turn to the main term **Osteomalacia**. The tentative code you find is **268.2**. Now turn to the Tabular List to determine the highest level of specificity. Based on the information you find, you see that you have coded the condition correctly—**268.2 Vitamin D deficiency, Osteomalacia, unspecified**.

**Other Metabolic and Immunity Disorders (270-279)**

Anything that is considered abnormal when one is dealing with metabolism and immunity is found in this section. Some diseases included in this chapter are **albinism, gout** and obesity. This section also contains many eponyms, which are listed as inclusions under the Tabular List code description. You are directed to use additional code(s) to identify any associated intellectual disabilities with codes in this section.
Albinism is a rare inherited disorder in which melanocytes are present but they do not form melanin. People with albinism have pale skin and white hair. Their eyes are pink because the retina lacks pigment. Individuals with this condition are at high risk for sunburn and skin cancer, and they must avoid the sun as much as possible. There is no treatment for this disorder. To code for albinism, turn to the main term Albinism, albino in the Index to Diseases. You will see many nonessential modifiers. Remember, these words may not be present in the narrative description of a disease, and they do not affect the code assignment. The tentative code 270.2 is indicated for the disorder of albinism. Be sure to determine the highest level of specificity in the Tabular List before you assign the code. Based on the information you have, the correct code is 270.2 Other disturbances of aromatic amino-acid metabolism.

Gout is a group of diseases, all of which are characterized by various combinations of deposits of uric acid crystals in the joints, certain tissues and the kidneys. Many people who have gout show a family disposition to it, and the disease affects men almost exclusively. The Tabular List notes that this category (274) EXCLUDES lead gout, and you are directed to use codes 984.0 through 984.9 instead. To code asymptomatic gout—gout with no symptoms—you begin in the Index to Diseases by locating the main term Gout, gouty. Once you’ve found Gout, gouty in the index, you will stop there because you do not have additional information to choose a subterm. The tentative code provided is 274.9. Turn to the Tabular List to determine the highest level of specificity for 274.9. You will then assign that code, 274.9 Gout, unspecified.

Step 16: Diseases of the Blood and Blood-Forming Organs (280-289)

Chapter 4 in your ICD-9-CM manual is the last one we’ll cover in this lesson. The chapter includes diseases such as anemias, coagulation defects, purpura, diseases of the white blood cells and other diseases of blood and blood-forming organs. Note from the Tabular List that this chapter EXCLUDES anemia complicating pregnancy or the puerperium, for which you would use code 648.2. Become familiar with the INCLUDES EXCLUDES and additional notes this chapter has to offer to assist you in accurate coding.

Anemia is any condition in which the number of red blood cells is less than normal. Common signs of anemia include shortness of breath, palpitations of the heart and lethargy. As you review the anemia section, be sure to note the inclusions, exclusions and additional notes.

Iron deficiency anemia is the most common form of anemia and probably the easiest to address. Iron deficiency is more common in women than in men.

Sickle-cell anemia is a genetic disease most prevalent in Africans and African-Americans. Just because an individual has sickle cell anemia does not mean he will experience symptoms. Symptoms depend on the amount of abnormal hemoglobin in the blood. Persons with high levels of abnormal hemoglobin (at least above 40 percent, but usually more) experience what are known as sickling crises. Such crises result in infarcts (inadequate supply of blood to the tissues), which damage the vital organs. The diagnosis of sickle cell anemia is made on the basis of clinical findings, but the disease can be confirmed only with laboratory tests.
Aplastic anemia is a rare type of anemia. There is a reduction in the number of red, white and platelet cells in the blood. The earliest form of all blood cells in the bone marrow is called stem cells. Aplastic anemia is a result of the failure to produce these stem cells. The two major forms of aplastic anemia are idiopathic aplastic anemia and secondary aplastic anemia. Idiopathic aplastic anemia, the more common type, is a form of bone marrow failure that has no apparent cause. The only known treatment for this type of anemia is a bone-marrow transplant. The other major form, secondary aplastic anemia, is caused by bone marrow suppression as a result of drugs, radiation therapy or viral infections. Secondary aplastic anemias usually can be reversed by removing whatever caused the bone marrow suppression in the first place.

Are you ready for another practice scenario? Consider that you’re the healthcare document specialist for a physician who has prepared the following dictation:

PREOPERATIVE DIAGNOSIS  
Suspect anemia.

POSTOPERATIVE DIAGNOSIS  
Biopsy confirms idiopathic aplastic anemia.

PRIMARY PROCEDURE  
BONE MARROW BIOPSY.

BRIEF HISTORY  
Patient presents with fatigue, SOB upon exertion, nosebleeds and bleeding gums x 3 months. CBC indicates low RBC, WBC and platelet count.

PROCEDURE  
Hip area is cleansed, and local anesthetic is injected into site. Biopsy needle is inserted into the bone. After the core of the needle is removed, the needle is pressed forward and rotated, forcing tiny samples of the bone into the needle. The needle is removed and pressure placed on the biopsy site.

How did you do? Let’s review the main steps to correctly code this diagnosis. The main term is Anemia, and the subterms are idiopathic and aplastic. Looking in the Index to Diseases, you’ll find Anemia with a tentative code of 285.9. Looking further, you see the subterm aplastic with a code of 284.9. But aplastic also has subterms, including idiopathic, which once again indicates a tentative code of 284.9. Now you turn to the Tabular List to determine the level of specificity for code 284.9. There you’ll see that you have selected the correct code, 284.9 Aplastic anemia, unspecified, which includes a sublisting for aplastic (idiopathic) NOS.

Coagulation defect is a failure to form blood clots. When you look in the Tabular List under code 286, you will see a number of eponyms listed in this category (for example, Rosenthal’s disease, Owren’s disease, von Willebrand’s disease and others).

Purpura is a condition visible through the skin and characterized by reddish-brown or purplish spots. It is caused by bleeding within underlying tissues. The Tabular List indicates that code 287 Purpura and other hemorrhagic conditions EXCLUDES hemorrhagic thrombocythemia and purpura fulminans. Allergic purpura is any hemorrhagic condition caused by a presumed allergic reaction to food, drugs or insect bites.

When you look in the Tabular List, you’ll notice that code 288 Diseases of white blood cells does not include leukemia. You should use subcategories 204.0 through 208.9 to code that disease. Eponyms also are often used in this category and are listed under the Tabular List code description.
Leukopenia is a disease in which the white blood cell count is below normal. Anything from drugs and environmental chemicals to radiation therapy and certain chronic diseases can cause leukopenia. To code this condition, locate the main term Leukopenia in the Index to Diseases, where you will find tentative code 288.50. Turn to the Tabular List to determine the highest level of specificity. You will see the code and description 288.50 Leukocytopenia, unspecified.

Finally, Chapter 4 addresses other diseases of blood and blood-forming organs. These other diseases include chronic lymphadenitis and hypersplenism. Turn to coding group 289 in the Tabular List to familiarize yourself with this group of codes, and be sure to call your instructor if you need any help understanding what you have read.

Now review Chapters 3 and 4 of the ICD-9-CM manual by taking the following Practice Exercise.

**Step 17: Practice Exercise 24-5**

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Postsurgical hypothyroidism
   ICD-9-CM code:

2. Type 1 diabetes hypoglycemic coma, uncontrolled
   ICD-9-CM code:

3. Primary hyperparathyroidism
   ICD-9-CM code:

4. Polycystic ovaries
   ICD-9-CM code:

5. Gouty arthropathy
   ICD-9-CM code:

6. Sickle-cell disease with crisis
   ICD-9-CM code:

7. Big spleen syndrome
   ICD-9-CM code:
Use the following information to complete the CMS-1500 that follows.

8. ICD-9-CM Coding/Billing Challenge

<table>
<thead>
<tr>
<th>Patient Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Bonnie Schmidt</td>
</tr>
<tr>
<td>Date of Birth: June 25, 1952</td>
</tr>
<tr>
<td>Address: 1810 Bluegrass Drive</td>
</tr>
<tr>
<td>City: Springtown</td>
</tr>
<tr>
<td>State: CO</td>
</tr>
<tr>
<td>ZIP: 80002</td>
</tr>
<tr>
<td>Home Phone: 970-555-9041</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Employer: Kain Graphics</td>
</tr>
<tr>
<td>Occupation: graphic designer</td>
</tr>
<tr>
<td>If Minor, Name of School:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insurance Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Insurance</td>
</tr>
<tr>
<td>Name: Country Group</td>
</tr>
<tr>
<td>ID#: 560001113</td>
</tr>
<tr>
<td>Group#: 208</td>
</tr>
<tr>
<td>Address: PO Box 324</td>
</tr>
<tr>
<td>City: Springtown</td>
</tr>
<tr>
<td>State: CO</td>
</tr>
<tr>
<td>ZIP: 80002</td>
</tr>
<tr>
<td>Primary Insured Name: Bonnie</td>
</tr>
<tr>
<td>Relation to Patient: self</td>
</tr>
<tr>
<td>DOB: same as above</td>
</tr>
<tr>
<td>Employer: Kain Graphics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: CHAMPVA</td>
</tr>
<tr>
<td>ID#: 635 00 7213</td>
</tr>
<tr>
<td>Group#: 208</td>
</tr>
<tr>
<td>Address: 4500 Cherry Creek Drive South; Box 64</td>
</tr>
<tr>
<td>City: Denver</td>
</tr>
<tr>
<td>State: CO</td>
</tr>
<tr>
<td>ZIP: 80222</td>
</tr>
<tr>
<td>Secondary Insured Name: Richard Schmidt</td>
</tr>
<tr>
<td>Relation to Patient: Spouse</td>
</tr>
<tr>
<td>DOB: Sept 15, 1952</td>
</tr>
<tr>
<td>Employer: USAF</td>
</tr>
</tbody>
</table>

| Signature of patient (or parent of minor child): Bonnie Schmidt |

| Signature of patient (or parent of minor child): |

| Diagnosis: 10/17/XX |
| Procedure: 99213 Est. Patient Level 3 |
| Charge: $63.00 |

| Today's Charge: $63.00 |
| Cash/Check: $0.00 |
| Balance: $63.00 |
Name: Bonnie Schmidt
DOB: June 25, 1952
Date of Service: October 17, 20XX

SUBJECTIVE
At a regular office visit, patient complains of constipation, nausea and vomiting, with abdominal pain, excessive thirst and muscle weakness. Patient is currently receiving treatment for thyroid cancer.

OBJECTIVE
An expanded problem focused examination is performed. The physician orders labs and an EKG, which are taken at the office. Results from the blood draw indicate an elevated calcium level and, on the EKG, a shortened Q-T interval.

ASSESSMENT
The patient has acute hypercalcemia resulting from the thyroid cancer.

PLAN
Orders for immediate hydration (3 L/day) and diuretic administration.
Step 18: Review Practice Exercise 24-5

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 19: Lesson Summary

What do you think of diagnosis coding so far? Are you beginning to see how everything you learned in previous lessons, from medical terminology to the *ICD-9-CM Coding Guidelines*, helps you as you code?

In this lesson we covered the first four chapters of Volume 1 (the *Tabular List*) of your *ICD-9-CM* manual. You learned about the sections of each chapter and about some of the diseases in each section. We showed you important notes, inclusions and exclusions from each section, which are designed to assist you as you code. And throughout the lesson were plenty of examples and Practice Exercises to give you more chances to code as you moved through the material. If you found parts of this lesson challenging, that’s understandable! We covered a lot of information here, and this is your first real attempt at diagnosis coding, so it’s only natural to have questions. Reread through the parts you found confusing, and be sure to contact your instructor with any remaining questions. Remember: Our goal is the same as yours—for you to succeed!

The format of the next few lessons will be similar to this one. We’ll continue to talk about the chapters in Volume 1 of your manual, the *Tabular List*, and you’ll have more diagnosis coding practice. But before you move on, take the Quiz to reinforce what you’ve learned in the last three lessons.

Step 20: Quiz 16

Once you’ve mastered the course content, locate this Quiz in your *Online Course* or your *Assignment Pack*. Read and follow the Quiz instructions carefully.

Endnote

1 2013 *ICD-9-CM Professional for Physicians - Volumes 1 & 2*, Salt Lake City, Utah: Ingenix, Inc.
Good start to diagnostic coding!

Your ICD-9-CM skills are developing nicely. Never lose sight of the importance of accuracy.

Keep up the strong effort!

In the next lesson, you’ll learn diagnostic coding from mental disorders to the circulatory system.

No need to wait for your Quiz results to move on to the next lesson.
Lesson 25
ICD-9-CM Coding—From Mental Disorders to Circulatory System

Step 1: Learning Objectives for Lesson 25

When you have completed the instruction in this lesson, you will be trained to do the following:

- Assess mental disorders, diseases of the nervous system and sense organs and diseases of the circulatory system.
- Explain the exclusions, inclusions and rules related to Chapters 5 through 7 of the Tabular List in the ICD-9-CM manual.
- Identify the diagnoses, outline the coding pathway and assign the final code for documented disorders and diseases.

Step 2: Lesson Preview

Now that you've begun to practice coding medical conditions, you have taken a big step toward your goal of becoming a healthcare document specialist. You will move even further toward that goal in this lesson, which introduces you to the codes in Chapters 5 through 7 of the ICD-9-CM manual's Tabular List. These chapters encompass the major disease categories of mental, behavioral and neurodevelopmental disorders, diseases of the nervous system and sense organs and diseases of the circulatory system.

Just as in the previous lesson, you'll find a lot of detailed information here. But just as before, you'll have as much time as you need to study the material and make sense of it. And as always, you can contact your instructor whenever you have questions you need answered.

Again, we subdivide all the chapters in this lesson into discussions about each section and refer you often to the Index to Diseases and the Tabular List so you can see exactly what we're talking about. And we provide you with lots of Practice Exercises to allow you to apply your coding skills as you learn.

When you have completed this lesson, you will be more than half-way through all the chapters of the Tabular List. So let's get moving! Take a few deep breaths, relax and you're ready to start learning how to code mental disorders.
To help make sure you don’t get confused as you code the Practice Exercises and scenarios throughout the following ICD-9-CM coding lesson, it’s important to keep in mind that we are focusing for now only on ICD-9-CM codes—not CPT codes. You will see physician notes and documentation about specific procedures in some of the scenarios we use just because we want you to practice with authentic examples. But remember that you will code only the diagnoses during these lessons—you’ll have plenty of time and lots of practice combining procedural and diagnostic codes in later lessons, after you’ve become more familiar and comfortable with the ICD-9-CM codes.

**Step 3: Mental, Behavioral and Neurodevelopmental Disorders (290-319)**

A mental disorder is any clinically significant behavioral or psychological syndrome that is characterized by the presence of distressing symptoms or significant impairment of function. Chapter 5 of the Tabular List includes the diagnosis codes for a broad range of mental disorders. Specifically, the sections focus on psychoses; neurotic, personality and other nonpsychotic mental disorders; and intellectual disabilities. As before, we will discuss each section in detail to help you build your knowledge of this subject.

Another widely used set of codes comes from the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, which American Psychiatric Publishing, Inc. publishes. When you assign codes for mental disorders, use both books as a reference aid, but ultimately use the ICD-9-CM manual to assign a code. As a student in this program, you do not need the Diagnostic and Statistical Manual of Mental Disorders. You will use the ICD-9-CM manual to assign this type of diagnosis.

**Psychoses (290-299)**

Psychoses are mental disorders in which the person demonstrates a loss of ego, boundaries or a gross impairment in reality testing, with delusions or prominent hallucinations. Turn to the Tabular List in your ICD-9-CM manual and locate this section of Chapter 5. Under the section heading, you will see EXCLUDES “intellectual disabilities.” You are directed to use code categories 317 through 319 for that diagnosis. The “Psychoses” section is further broken down into “Organic Psychotic Conditions (290-294)” and “Other Psychoses (295-299).”

The code category for Organic Psychotic Conditions (290-294) INCLUDES “psychotic organic brain syndrome.” It EXCLUDES “nonpsychotic syndromes of organic etiology,” (310.0 through 310.9) and “psychoses classifiable to 295-298 and without impairment of orientation, comprehension, calculation, learning capacity and judgment, but associated with physical disease, injury, or condition affecting the brain [e.g., following childbirth] (295.0-298.8).”

Category 290 codes dementias, which are characterized by a general loss of intellectual abilities, involving impairment of memory, judgment and abstract thinking, as well as changes in personality. You are instructed to code first the associated neurological condition for category 290. This means that if a neurological condition is documented together with dementia, that neurological condition will be your principal diagnosis code, and the dementia will be your secondary diagnosis code.
Using your *ICD-9-CM* manual, let’s code uncomplicated senile dementia. First, go to the *Index to Diseases* and locate the main term *Dementia*. The subterm is *senile*. You will quickly find the code 290.0. Note this tentative code, and then turn to the *Tabular List* to determine the highest level of specificity. Based on the information you find you will assign 290.0 *Senile dementia, uncomplicated* as the correct code. Great job!

The other organic psychotic conditions in this section are caused by a chemical imbalance in the patient. This imbalance may be the result of alcohol intoxication or withdrawal, or it may represent disorders caused by consumption of drugs. This category has many inclusions, exclusions and additional notes to assist you with accurate coding. Be sure you use additional codes, when indicated, to identify drugs and code underlying conditions.

Now that we’ve introduced you to organic psychotic conditions, let’s look at “Other Psychoses (295-299)” to give you a better understanding of the category. If the condition is documented, you are to use an additional code to identify any associated physical disease, injury or condition affecting the brain with psychoses classifiable to codes 295-298. These other psychotic conditions include schizophrenia, episodic mood disorders, delusional disorders, other nonorganic psychoses and pervasive developmental disorders.

**Schizophrenic disorders**, found in category 295, represent a group of disorders with disturbances in thought, mood, sense of self and relationship to the world. Schizophrenic disorders also include bizarre, purposeless behavior, repetitious activity or inactivity. This category **INCLUDES** schizophrenia of the types described in codes 295.0 through 295.9 occurring in children. The category **EXCLUDES** childhood type schizophrenia (299.9) and infantile autism (299.0). Category 295 requires a fifth-digit subclassification to describe the current condition of the disorder.

Review the following box, which identifies the fifth digits you will select from when you code this category.

<table>
<thead>
<tr>
<th>The following fifth-digit subclassification is for use with category 295:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 unspecified</td>
</tr>
<tr>
<td>1 subchronic</td>
</tr>
<tr>
<td>2 chronic</td>
</tr>
<tr>
<td>3 subchronic with acute exacerbation</td>
</tr>
<tr>
<td>4 chronic with acute exacerbation</td>
</tr>
<tr>
<td>5 in remission</td>
</tr>
</tbody>
</table>

Code category 296 covers **Episodic Mood Disorders** that range from *bipolar I disorder* to *major depressive disorder*. The fifth-digit subclassification for the subcategories 296.0 through 296.6 indicates whether the disorder is unspecified, mild, moderate, severe or in remission. Once again, take a closer look here at the box, which identifies these fifth digits:

<table>
<thead>
<tr>
<th>The following fifth digits are for use with categories 296.0-296.6:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 unspecified</td>
</tr>
<tr>
<td>1 mild</td>
</tr>
<tr>
<td>2 moderate</td>
</tr>
<tr>
<td>3 severe, without mention of psychotic behavior</td>
</tr>
<tr>
<td>4 severe, specified as with psychotic behavior</td>
</tr>
<tr>
<td>5 in partial or unspecified remission</td>
</tr>
<tr>
<td>6 in full remission</td>
</tr>
</tbody>
</table>
Healthcare Documentation Program

Code category 297 Delusional disorders [INCLUDES] paranoid disorders and [EXCLUDES] acute paranoid reaction (298.3), alcoholic jealousy or paranoid state (291.5) and paranoid schizophrenia (295.3). A shared psychotic disorder (297.3) is a mental disorder two people share. Because of their close relationship and shared experiences, the first person with the delusional disorder convinces the second person to accept the delusions.

Now that you have an initial understanding of other psychotic conditions, let’s get some practice coding them!

SUBJECTIVE
A patient presents with sadness and low self-esteem. Patient notes her normal sleep is now “interrupted sleep.” The patient is very critical of herself and feels inadequate. The patient denies suicidal thoughts.

OBJECTIVE
Detailed physical exam is normal.

ASSESSMENT
The doctor’s impression is the patient has psychotic depression.

PLAN
Antidepressants will be prescribed.

As the healthcare document specialist, would you choose depression or psychosis as the main term? A quick look at each term in the Index to Diseases indicates that either path will result in the same code. Let’s use Psychiatry as the main term and depressive as the subterm. Using that pathway, the Index to Diseases notes to “see also Psychosis, affective.” Refer to Lesson 23 and note that see also indicates that additional information about the term and code is available to you under the referenced term in the Index to Diseases. After you review the information provided, your conclusion should be that you’re on the right track with the original pathway; so return to Psychosis, depressive in the Index to Diseases and note the tentative code of 296.2. Then turn to the Tabular List to determine the highest level of specificity. You’ll note that code 296.2 describes major depressive disorder, single episode. Psychotic depression is included as a subterm under that description. To determine the fifth-digit subclassification for the code, you must determine whether the doctor documented mild, moderate, severe or in remission. This information is not documented, so you must select the fifth-digit 0 for “unspecified.” You will assign code 296.20 Major depressive disorder, single episode, unspecified for the final diagnosis.

Neurotic Disorders, Personality Disorders, and Other Nonpsychotic Mental Disorders (300-316)

As you may be able to tell from the title of this section, it contains a variety of disorders, dependencies and disturbances. Anxiety, personality disorders, sexual and gender-identity disorders, alcohol and drug dependency, nondependent abuse of drugs and other special symptoms or syndromes not elsewhere classified are covered in this one section. We will discuss the fifth-digit subclassification, but you will discover important information on your own as you review the EXCLUDES information and additional notes in this section.

In the categories 303 Alcohol dependence syndrome, 304 Drug dependence and 305 Nondependent abuse of drugs, note the boxes for the fifth-digit subclassifications that relate to each category. Let’s take a look at examples from each subclassification and do some coding practice so that you fully understand the meaning of the various fifth-digit terms. The fifth-digit options are the same for each of these codes. Use the following box to select the appropriate fifth digit as you code these examples.
Fifth-Digit 0—Unspecified

Now try your hand at coding the following: A male of unknown age is brought unconscious to the ED. Once the patient has regained consciousness, the physician obtains a problem focused history and performs an expanded problem focused exam. The physician recommends detoxification. The patient refuses treatment and leaves AMA (against medical advice). He is diagnosed with chronic alcoholism.

To code this condition, locate the main term Alcoholism in the Index to Diseases. The subterm chronic suggests that 303.9 is tentatively the correct code. Now turn to the Tabular List to determine the highest level of specificity. You do not know whether this patient's dependency is continuous, episodic, or in remission, so you must code to “unspecified,” or 0, for the fifth-digit subclassification. You will assign 303.90 Alcohol dependence syndrome, Other and unspecified alcohol dependence, unspecified as the accurate code for this scenario.

Fifth-Digit 1—Continuous

Here’s the next example to code: A 42-year-old female was involved in a car accident six months ago and suffers from whiplash. At the time of the accident, she was prescribed 1 to 2 tablets of Percodan to be taken every six hours as needed for pain. She is being seen by her physician for a prescription refill. The physician performs a detailed exam. He strongly advises the patient to find an alternative method for pain relief. The patient decides to schedule another visit in one month. The physician’s assessment for this encounter is continuous dependency of Percodan.

To code this condition, use the coding pathway Dependence, Percodan. Note the tentative code of 304.0 in the Index to Diseases, and then turn to the Tabular List to determine the highest level of specificity. Based on the physician’s notes, the fifth digit you will use is 1 for “continuous.” So you assign code 304.01 Drug dependence, Opioid type dependence, continuous as the correct code for this condition.

Fifth-Digit 2—Episodic

You’re getting the hang of things now, aren’t you? See how quickly you can determine the correct code for the following example: A 21-year-old college student is a new patient in the clinic. She admits the use of cocaine during her “finals week,” believing its use increases her performance, confidence and energy. Now that her exams are over, she reports problems with insomnia related to the episodic use of the drug. After a problem focused exam the patient is encouraged to discontinue use of the drug. The patient is diagnosed with episodic cocaine abuse.

To code this condition, find the main term Abuse in the Index to Diseases. The subterms drugs, nondependent, cocaine type provide the tentative code of 305.6. Now turn to the Tabular List to determine the highest level of specificity. Given all that you see here, including the fifth-digit options, you will assign code 305.62 Nondependent abuse of drugs, Cocaine abuse, episodic based on the documentation of “episodic” in the notes.
Fifth-Digit 3—In Remission

Okay, here’s the last example for you to code in this group: A 36-year-old patient has a history of sedative abuse but has been in remission for six months.

To code this condition, locate Abuse as the main term in the Index to Diseases. The subterms of drugs, nondependent and sedative provide you the tentative code of 305.4. Note the code and find it in the Tabular List to determine the highest level of specificity. Because remission is documented, you determine that the fifth-digit subclassification is 3, and you assign code 305.43 Nondependent abuse of drugs, Sedative, hypnotic or anxiolytic abuse, in remission as the correct choice.

Intellectual Disabilities (317-319)

Intellectual disabilities are characterized by significantly subaverage general intellectual functioning that is associated with impairments in adaptive behavior, and that manifests during the child’s developmental period. The Tabular List instructs you to use additional code(s) to identify any associated psychiatric or physical conditions if they are documented. The intellectual disabilities diagnosis can be classified as mild, moderate, severe, profound or unspecified. IQ levels are indicated in the ICD-9-CM with codes to correlate with each classification.

This completes your introduction to the codes in Chapter 5 of the Tabular List. Before we move ahead to the contents of Chapter 6, complete the following exercises to review what you’ve learned.

Step 4: Practice Exercise 25-1

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Alcoholic delirium
   ICD-9-CM code:
2. Catatonic stupor
   ICD-9-CM code:
3. Acute hysterical psychosis
   ICD-9-CM code:
4. Obsessive-compulsive disorder
   ICD-9-CM code:
5. Anorexia nervosa
   ICD-9-CM code:
6. Kleptomania
   ICD-9-CM code:
7. Mild mental subnormality
   ICD-9-CM code:
ICD-9-CM Coding—From Mental Disorders to Circulatory System

Use the following information to complete the CMS-1500 that follows.

8. ICD-9-CM Coding Challenge

<table>
<thead>
<tr>
<th>Dwight Harrison, MD</th>
<th>Leslie Jones, MD</th>
<th>Clifford Phillips, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPI: 6574900497</td>
<td>NPI: 0405891109</td>
<td>NPI: 0275695402</td>
</tr>
<tr>
<td>Provider for Medicaid and Western Workers Insurance</td>
<td>Provider for Medicare, Mutual Insurance and Blue Cross</td>
<td>Provider for Medicaid</td>
</tr>
</tbody>
</table>

Medical Care Center
100 South Main
Yourtown, CO 80000
(970) 555-1111

Patient Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Date of Birth</th>
<th>Sex</th>
<th>Marital Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kami Reynolds</td>
<td>June 25, 1997</td>
<td>F</td>
<td>single</td>
</tr>
</tbody>
</table>

Employment Information

<table>
<thead>
<tr>
<th>Name of Employer</th>
<th>Occupation</th>
<th>Student Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>X Full time</td>
</tr>
</tbody>
</table>

Insurance Information

<table>
<thead>
<tr>
<th>Primary Insurance</th>
<th>Secondary Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name</td>
</tr>
<tr>
<td>Medicaid</td>
<td>none</td>
</tr>
<tr>
<td>ID#</td>
<td>ID#</td>
</tr>
<tr>
<td>521-00-3333</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group#</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>ZIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PO Box 1461</td>
<td>Denver</td>
<td>CO</td>
<td>80203</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary Insured Name</th>
<th>Secondary Insured Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kami Reynolds</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relation to Patient</th>
<th>Employer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td></td>
</tr>
</tbody>
</table>

I authorize the release of any information including diagnosis and treatment. I authorize my insurance carrier to pay directly to the doctor any benefits otherwise payable to me.

Nicole Reynolds
Signature of patient (or parent of minor child)

Signature of patient (or parent of minor child)

Physician signature: Clifford Phillips MD

<table>
<thead>
<tr>
<th>Group NPI:</th>
<th>EIN:</th>
<th>CLIA#</th>
</tr>
</thead>
<tbody>
<tr>
<td>0665544004</td>
<td>99-0000009</td>
<td>CM8402</td>
</tr>
</tbody>
</table>

Date of Service: 5/1/20XX

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Procedure</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99213 Est. Patient Level 3</td>
<td>$63.00</td>
</tr>
</tbody>
</table>

Today’s Charge: $63.00
Cash/Check: $0.00
Balance: $63.00
Name: Kami Reynolds  
DOB: June 25, 1997  
Date of Service: May 1, 20XX

**SUBJECTIVE**  
This patient is brought in by her mother because of a change in the daughter’s behavior. The mother notes hyperactivity, outbursts and over-involvement in activities. Patient notes she has been sleeping little and has been involved in sexual promiscuity. She denies medication, recreational or OTC drugs. Family history includes maternal bipolar disorder.

**OBJECTIVE**  
An expanded problem focused physical exam does not indicate physical causes for these symptoms. Lab results indicate the thyroid is normal.

**ASSESSMENT**  
Bipolar disorder.

**PLAN**  
Recommend getting more sleep. Patient is prescribed lithium and encouraged to join a support group.
Step 5: Review Practice Exercise 25-1

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 6: Diseases of the Nervous System and Sense Organs (320-389), Part 1

Chapter 6 of the ICD-9-CM manual’s Tabular List contains codes that pertain to the nervous system and sense organs. The nervous system regulates almost every activity in the body. The central and peripheral nervous systems comprise the nervous system. The central nervous system is composed of the brain and spinal cord. In this step, we will discuss this system and each of its sections, which include inflammatory diseases, hereditary and degenerative diseases and other disorders of the central nervous system. We will then discuss the disorders of the peripheral nervous system, which consist of the nerves and ganglia outside the brain and spinal cord. Finally, later in the lesson, we will identify the diagnostic process that deals with the sense organs, specifically of the eye and the ear.

Inflammatory Diseases of the Central Nervous System (320-326)

In this section you will find diagnosis codes for meningitis, encephalitis, abscesses, phlebitis and thrombophlebitis, as well as codes for the late effects of intracranial abscess or pyogenic infection. This section lists many INCLUDES, EXCLUDES and additional notes that will assist you in accurate coding of these disease diagnoses.

Meningitis is an inflammation of the meninges, usually by either a bacterium or a virus. Meninges are the three membranes, the dura mater, the pia mater and the arachnoid, that cover the brain and spinal cord.

Overview of neurologic system anatomic divisions
Open your ICD-9-CM manual to the Tabular List, code category 320, and note that this category is specific to bacterial meningitis. This section lists many INCLUDES listed under the code description. All of the infections that cause inflammation are bacterial, as well. Subcategory 320.7 directs you to first code the underlying diseases, and then, to assist you in coding, it provides a list of some diseases. Move to category 321, and you will note that diseases in this category are caused by organisms other than bacteria. Another noteworthy item is that each subcategory of code 321 directs you to code first the underlying diseases. Finally, you should use code category 322 if no organism is specified as the cause of meningitis.

You will use code category 323 for the conditions of encephalitis, myelitis and encephalomyelitis. Note that each of these conditions ends with “itis.” You know from your terminology lessons that this suffix means “inflammation of.” Encephalitis is inflammation of the brain. Myelitis is inflammation of the spinal cord and of the bone marrow. Encephalomyelitis is inflammation of the brain and spinal cord. The Tabular List instructs you to code first the underlying disease in this category, as well.

Now that you are aware of the INCLUDES, EXCLUDES and additional notes in this section, it’s time to give coding a try! Code for a diagnosis of meningitis due to whooping cough. Open your ICD-9-CM manual to the Index to Diseases, and locate the main term Meningitis. As you look down the list of subterms, you will find due to. This sounds like a good path to take, so let’s continue. Under that subterm, you will find whooping cough, followed by codes 033.9 [320.7]. Remember from Lesson 23 that the slanted brackets indicate that another code is required in addition to the first code listed. You must record both codes, in the order they are given. Remember—do not include the slanted brackets when you record the second code. Note these tentative codes, and then turn to the Tabular List to determine the highest level of specificity. You will assign codes 033.9 Whooping cough, unspecified organism and 320.7 Meningitis in other bacterial diseases classified elsewhere as the correct codes for this condition. You’re doing well!

The next section, Organic sleep disorders (327), is fairly straightforward to code, so let’s move on to the next section.

### Hereditary and Degenerative Diseases of the Central Nervous System (330-337)

The term neurodegenerative disease is a catch-all phrase that describes several poorly understood diseases that affect only the central nervous system (CNS). The etiology of these diseases is unknown, and they are all incurable, although some are treatable. Easily recognized symptoms often lead to the diagnosis of neurodegenerative disease. Sometimes, however, patients do not display all the common clinical features of a disease, so the diagnosis can be made only by the process of elimination relative to other CNS diseases. Before we discuss some of the diseases you will find within this section, review the Tabular List to note the inclusions, exclusions, notes and the many eponyms provided to assist you with accurate coding. Remember that eponyms are diseases named for persons. Four neurodegenerative diseases worth a closer look are Alzheimer’s disease, Parkinson’s disease, Huntington’s disease and amyotrophic lateral sclerosis (known by many people as ALS or Lou Gehrig’s disease, as discussed later).

As the overall population of the United States ages, awareness of and the predominance of Alzheimer’s disease grows. Alzheimer’s disease is a disease of diffuse atrophy throughout the cerebral cortex. The disease causes a progressive decline in intellectual and physical functions, including memory loss, personality changes and profound dementia. Technically speaking, Alzheimer’s disease is a form of dementia, and its cause is unknown. We discussed dementia earlier in this lesson, so let’s apply what you’ve learned to see how that information helps you in the coding process.
Consider that you are the healthcare document specialist for a nursing home. You are to code the following dictation:

**SUBJECTIVE**
A 65-year-old rest home resident is seen for evaluation. Patient complains of memory disturbance, and the staff notes personality changes but no behavioral disturbances. The physician reviews the patient's history from the medical records.

**OBJECTIVE**
A detailed exam is performed.

**ASSESSMENT**
The patient is diagnosed with Alzheimer dementia.

**PLAN**
The patient will be monitored by the staff for signs of increased agitation.

To code this condition, would you use Alzheimer's or dementia as the main term? Let's try Dementia as the main term and Alzheimer's as the subterm. Turn to the Index to Diseases and locate this coding pathway. You are instructed to “see Alzheimer’s dementia.” We chose the wrong coding pathway, but you have directions now! We will use Alzheimer's as the main term and dementia as the subterm. The coding pathway of Alzheimer’s, dementia gives you a choice of “with or without behavioral disturbances.” According to the notes, the staff sees changes in the patient’s personality, but no behavioral disturbances. So you will note a tentative code without behavioral disturbances, which indicates 331.0 [294.10]. Remember that the slanted brackets indicate that another code is required in addition to the first code listed. You must record both codes, in the order as they are given, but you do not include the slanted brackets when recording the second code. Now turn to the Tabular List with these tentative codes to determine the highest level of specificity. Based on the information you find there, you will assign codes 331.0 Alzheimer’s disease and 294.10 Dementia in conditions classified elsewhere without behavioral disturbance as the final diagnosis codes for this encounter.

**Parkinson’s disease** is a well-known and relatively common disease that creates movement disorders and pathologic changes in the midbrain that affect the involuntary muscle system. This disease results in decreased numbers of dopaminergic neurons in the brain. These neurons produce dopamine, and many symptoms of Parkinson’s are related to the brain's underproduction of this chemical. For this reason, administration of the drug L-dopa has been known to temporarily reduce the effects of Parkinson’s in a minority of patients. Category 332 is where you will find the specific codes for this disease.

**Huntington’s disease**, coded in category 333, is a genetic disease characterized by chronic progressive mental deterioration, twisting movements of the face, limbs and body. Facial movements are affected, which can cause aspiration and malnutrition. Walking becomes impossible due to deterioration of gait. This disease does not usually appear or show symptoms until individuals are in the middle of their lives. Once the symptoms appear, the course of the disease is rapid. Death usually occurs 10 to 20 years after the onset of symptoms.
Amyotrophic lateral sclerosis (ALS) is a disease that became well-known when baseball player Lou Gehrig contracted it. Since then, the disease has commonly been referred to as Lou Gehrig’s disease. Involuntary twitching of the hand muscles is a common early symptom, and the disease can lead to slurring of speech in advanced cases. In the end, patients are immobilized, and death usually results from paralysis of the respiratory muscles. The ICD-9-CM code for this disease is 335.20. To locate the code in the Index to Diseases, you can follow many different coding pathways:

Main term: Disease; subterm: Lou Gehrig’s
Main term: Lou Gehrig’s disease
Main term: Sclerosis; subterm: amyotrophic (lateral)
Main term: Amyotrophia; subterm: sclerosis (lateral)

Other Headache Syndromes (339)

In a later lesson, we will discuss how to code a headache when it’s a symptom of an unconfirmed diagnosis or an uncertain condition. However, a headache may be the problem, not just the symptom of another condition. In this case, you will code from category 339, Other headache syndromes. These conditions include cluster, tension, post-traumatic, drug-induced, complicated and other specified headache syndromes.

A cluster headache is one of the most painful types of headache, which occurs in cyclical patterns, or clusters. This type of headache is rare, although it is more common in men and it’s most common among those between ages 20 and 40. Based on the length of the cluster periods and the remission periods, the International Headache Society has classified cluster headache into two types:

Episodic—In this form, cluster headache occurs at least daily for one week to one year, followed by a pain-free remission period lasting at least one month before another cluster period develops.

Chronic—In this form, cluster headache occurs daily for more than a year with no remission or with pain-free periods lasting less than one month.

The most common headache is the tension headache. A tension headache often feels like a tight band is around the head. It may be triggered by neck strain or eyestrain. The tension headache can be classified as episodic, chronic or unspecified. Turn in the Tabular List to 339.1, Tension type headache and review that this code EXCLUDES “tension headache NOS” and “tension headaches related to psychological factors.” Most tension headaches are easily treated with over-the-counter medications, including aspirin, ibuprofen and acetaminophen.

If you’ve been taking pain medication often, even common medications such as aspirin, acetaminophen and ibuprofen, the drugs may actually be contributing to your headaches rather than easing them. Drug induced headaches or rebound headaches may be dull, achy, throbbing or pounding and are caused by medication overuse. The only way to stop rebound headaches is to reduce or stop taking the pain medication that’s causing them.
Other Disorders of the Central Nervous System (340-349)

The disorders you will find in this section are varied. *Multiple sclerosis*, hemiplegia, *epilepsy*, migraine and encephalopathy are among the many disorders included here. As before, we will cover some important items in this section, but when you are coding, be sure to read the inclusions, exclusions and additional notes in the *Tabular List* so you can code the diagnoses accurately.

**Multiple sclerosis** (MS) is an autoimmune disease of the central nervous system. This relatively common disease affects approximately one out of every 1,000 people in the United States. MS affects mostly people from 20 years to 45 years of age, and it is the number one neurological disease in young adults. MS affects women about twice as often as it does men. The cause of MS is completely unknown, and it currently has no cure. This disease involves both sensory and motor abnormalities. The course of multiple sclerosis is chronic, and it is characterized by periods of intense symptoms followed by periods of remission. Symptoms involving the senses include blurred vision, a loss of the feeling of touch and unusual tingling sensations. The physical symptoms include weakness, difficulty or unsteadiness in walking and urinary- and sphincter-control problems. Currently MS can be treated with interferon drugs, which help reduce the frequency of symptoms.

Now turn to code category **342 Hemiplegia and hemiparesis** in the *Tabular List*, and locate the fifth-digit subclassification box. You will find information like the box on the page that follows.

<table>
<thead>
<tr>
<th>The following fifth digits are for use with codes 342.0-342.9:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 affecting unspecified side</td>
</tr>
<tr>
<td>1 affecting dominant side</td>
</tr>
<tr>
<td>2 affecting nondominant side</td>
</tr>
</tbody>
</table>

You will use these fifth digits to identify the side of the body affected by the hemiplegia, and they require some definition. Your **dominant** side is the side of the body you use primarily for activities of daily living (ADLs). For example, a right-handed person is **right-side dominant**. Usually the doctor will include in the dictation which side was affected, as well as whether that side is **dominant** or **nondominant**. If the doctor does not include this information, you will code to “unspecified.” You will also see reference to the “dominant side,” “nondominant side” and “unspecified side” in subcategories 344.3 and 344.4 for monoplegia of the lower and upper limbs.

**Epilepsy** is a brain disorder characterized by uncontrolled electrical discharges of neurons that interrupt normal function in the brain. Individuals with epilepsy may experience brief periods of unconsciousness, staring spells or even convulsions. Although epilepsy is a chronic condition, it does not usually get worse over time. People with epilepsy can expect to live a normal life span. There is no cure for epilepsy, but seizure-preventing medication can control those symptoms in a majority of persons with the disease. The condition for those individuals who do not respond to current medications is termed **intractable**. You can see this term in the box for fifth-digit subclassification in the **345 Epilepsy and recurrent seizures** code category. If the term intractable is not specified, you can determine by the documented medication which digit would be most appropriate.
Turn in the Tabular list to category **346 Migraine**. You will note this category excludes headaches not otherwise specified, which you’ll use 784.0, as well as the headache syndromes, codes 339.00 through 339.89. You will note a box similar to the one that follows:

<table>
<thead>
<tr>
<th>Fifth Digit Subclassification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>without mention of intractable migraine without mention of status migrainosus</td>
</tr>
<tr>
<td>1</td>
<td>with intractable migraine, so stated without mention of status migrainosus</td>
</tr>
<tr>
<td>2</td>
<td>without mention of intractable migraine with status migrainosus</td>
</tr>
<tr>
<td>3</td>
<td>with intractable migraine, so stated, with status migrainosus</td>
</tr>
</tbody>
</table>

For you to code the fifth-digits 1 or 3, the physician must specifically document that the patient does not respond to current medications related to the disease. If that is not documented you will use either 0 or 2 as the fifth digit. **Status migrainosus** is a debilitating migraine attack lasting for 72 hours or longer. Again, the physician must clearly document status migrainosus if the fifth digit is a 2 or 3.

Migraines can be classified as with or without an aura. A migraine with aura, or classic migraine, is characterized by visual disturbances such as flashes of light, zigzagging patterns or even blind spots. These warning symptoms may occur anywhere from a few minutes to 24 hours before the headache. Migraines without aura are also known as common migraines. Remember, if the documentation only provides “migraine” as the diagnosis, you’ll code **346.90 Migraine, unspecified, without mention of intractable migraine without mention of status migrainosus** as the final code.

Time for some form coding practice: You are the healthcare document specialist for emergency physicians, and you are to code the following dictation:

**SUBJECTIVE**
A 55-year-old female is seen in the emergency department complaining of nausea, vomiting, and an intense headache. She experienced flashes of light prior to onset of symptoms.

**OBJECTIVE**
An expanded problem focused exam is performed.

**ASSESSMENT**
The impression is that the patient is suffering from a classic migraine.

**PLAN**
The doctor suggests OTC (over-the-counter) medication and a follow-up with the patient’s primary provider.

The patient presented with symptoms of nausea, vomiting and a headache. You do not code symptoms when a final diagnosis is provided. Therefore, you will begin in the Index to Diseases with the coding pathway of **Migraine, classic**. Note the tentative code of **346.0** and then turn to the Tabular List to determine the highest level of specificity. The doctor does not indicate whether the patient is currently taking medication for this condition and status migrainosus is not documented. You will assign the final diagnosis code of **346.00 Migraine with aura, without mention of intractable migraine without mention of status migrainosus**.
Disorders of the Peripheral Nervous System (350-359)

Now that you have a basic understanding of the central nervous system (CNS), let’s turn to the peripheral nervous system. Remember that the CNS is composed of the brain and the spinal cord, and that the **peripheral nervous system** consists of the nerves and ganglia outside the brain and spinal cord. The peripheral nervous system section includes codes for disorders and diseases of the nerves, muscles and the combination of nerves and muscles, such as *carpal tunnel syndrome*, *myasthenia gravis* and muscular dystrophy, among others. You will find many eponyms in this section of the *Tabular List*. Once again, remember that eponyms are diseases named for persons. This section also has many INCLUDES and EXCLUDES for you to be aware of when you code from it. If an underlying disease is indicated with codes 357.1 through 357.4, 358.1, or 359.5 through 359.6, you must code that disease first.

Carpal tunnel syndrome is the result of the compression of the median nerve beneath the transverse carpal ligament within the narrow confines of the carpal tunnel, which is located at the wrist. A physician may diagnose a patient with carpal tunnel syndrome by having her hold her wrist back in an acute bent position for 60 seconds. If this results in pain, tingling, numbness and burning sensations in the palmar surface of the thumb, the index finger, the middle finger and part of the ring finger, it is called a positive Phalen’s sign. One treatment for this condition consists of resting the hand and wrist for a period of time, avoiding activities that may aggravate the symptoms. The wrist may be splinted by the physician to avoid movement that might cause further damage to the nerves. To code this condition, use the coding pathway of Syndrome, carpal tunnel in the Index to Diseases. Note 354.0 as the tentative code, and then turn to the Tabular List to determine the highest level of specificity. Based on the information you find, you can confidently assign code 354.0 Carpal tunnel syndrome for the condition.

Myasthenia gravis (MG) is a disease of the neuromuscular function characterized by fluctuating weakness of certain skeletal muscle groups. It is an autoimmune process that affects the neuromuscular junction by impairing muscle contraction. The cause of MG is unknown. The symptoms of this disease involve fatigue of voluntary muscles. Because the facial muscles are often affected, many persons with this condition experience drooping eyelids, fatigue while reading or double vision. The disease tends to spread first to the upper muscles, especially the eye, face, lips, tongue, throat and neck. Eventually, MG spreads to the entire muscular system, causing immobility. Death often results from paralysis of the respiratory muscles and the diaphragm. You can locate code 358.00 for this condition in the Index to Diseases by selecting the main term Myasthenia and the subterm gravis. If you try to find the code using Gravis as the main term, you will be directed to “see condition,” which is myasthenia.

Let’s pause here so you can take a few deep breaths and then review the information from this section to see how well you understand all the details. We’ll continue with the next section of the Tabular List and eye disorders after you have completed Practice Exercise 25-2.
Step 7: Practice Exercise 25-2

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Staphylococcal meningitis
   ICD-9-CM code:

2. Tay-Sachs disease
   ICD-9-CM code:

3. Spasmodic torticollis
   ICD-9-CM code:

4. Spastic hemiplegia affecting the dominant side
   ICD-9-CM code:

5. Intractable grand mal epilepsy
   ICD-9-CM code:

6. Bell’s palsy
   ICD-9-CM code:
7. ICD-9-CM Coding/Billing Challenge

Use the following information to complete the CMS-1500 that follows.

**FRONT RANGE FAMILY CARE**
1800 Circle Court
Yourtown, CO 80000
(970) 555-3344

---

**Patient Information**
Name: Cathy Harrison
Date of Birth: August 9, 1967
Sex: F
Marital Status: Married
Address: 2419 Zendt Drive
City: Anytown
State: CO
ZIP: 80000
Home Phone: (970) 555-2112

---

**Employment Information**
Name of Employer: Sandy’s Nails
Address: 452 Link Lane
City: Anytown
State: CO
ZIP: 80000
Phone: (970) 555-1397
Occupation: receptionist
Student: No

---

**Insurance Information**
Primary Insurance:
Name: Blue Cross of Wyoming
ID#: 641-00-0000
Group#: GE54002
Address: PO Box 456
City: Casper
State: WY
ZIP: 82002
Primary Insured Name: Tom Harrison
Relation to Patient: Spouse
DOB: 08-02-59
Employer: Front Range Auto Sales
I authorize the release of any information including diagnosis and treatment. I authorize my insurance carrier to pay directly to the doctor any benefits otherwise payable to me.

---

**Physician signature:** Greg Stephen MD
SSN: 700-07-0007
EIN: 66-6000600
Participating Provider for: Blue Cross, HMO and Mutual Life

---

**Date of Service:** 3/19/XX
**Diagnosis:** 99242 Consultation, level 2
**Charge:** $102.00

---

**Today’s Charge:** $102.00
**Cash/Check:** $20.00
**Balance:** $82.00
Name: Cathy Harrison
DOB: August 9, 1967
Date of Service: March 19, 20XX
Referred by Carolyn Hooper, MD
NPI: 0188123456

SUBJECTIVE
The patient is seen for an office consultation to confirm her physician's diagnosis of multiple sclerosis. Patient notes that tingling sensations and weakness in her legs have increased.

OBJECTIVE
The patient history and recent MRI provided by her physician are reviewed by the neurologist. An expanded problem focused examination is performed.

ASSESSMENT
The neurologist confirms the diagnosis of multiple sclerosis.

PLAN
The patient is prescribed a 2-week course of prednisone to reduce her current symptoms. She was also given information on current injectable medications that could reduce the frequency of her exacerbations. A follow-up appointment is to be scheduled to discuss long-term treatment of her MS. A copy of the consultation notes will be sent to her primary care provider.
### ICD-9-CM Coding—From Mental Disorders to Circulatory System

#### Step 8: Review Practice Exercise 25-2

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 9: Diseases of the Nervous System and Sense Organs (320-389), Part 2

We’re now ready to discuss the diagnosis codes that pertain to diseases and conditions related to the sense organs. As noted earlier, our focus will be on disorders of the eye and the ear.

Disorders of the Eye and Adnexa (360-379)

This section contains codes for disorders of the eye, including the lids and other accessory organs of the eye. You are directed to use an additional external cause code, if applicable, to identify the cause of the eye condition. In this section, you will find codes for disorders of the globe, retina, choroid and iris. You will find diseases such as glaucoma and cataracts. Visual disturbances and blindness are also covered. And then you will discover many diseases that pertain to the appendages of the eye, such as the conjunctiva and optic nerves.

In this section, you will note that the code description is at the highest level of specificity—in other words, there are no fifth-digit subclassification boxes to consider. A few codes are manifestations of other diseases, and the text directs you to first code the underlying disease. We will include some of the information from the Tabular List in this step, but you will want to review the details carefully on your own when you are coding from this section.

Turn to the Tabular List and locate code category 360, which contains codes for disorders of the globe. The globe of the eye is also referred to as the eyeball. The first disorder you encounter in subcategories 360.0 and 360.1 is endophthalmitis, which is an inflammation of the tissues within the eyeball. Note subcategories 360.5 and 360.6 for codes pertaining to retained (old) foreign bodies, and you are to use an additional code to identify the foreign body. Code 360.5 EXCLUDES current penetrating injury with magnetic foreign body, while code 360.6 EXCLUDES nonmagnetic foreign bodies. Instead, you will use a code in the 800 range for current injuries. These subcategories are specifically for those foreign bodies that have been present for a while and are not likely to be removed.
Categories 361 and 362 supply diagnostic codes for the retina. This light-sensitive membrane forms the innermost layer of the eyeball. When you have a retinal detachment, the light-sensitive layer at the back of the eye separates from the blood supply, causing disruption to vision. Retinopathy is a noninflammatory degenerative disease of the retina. There are two types of background retinopathy; one is designated as a manifestation from diabetes, and one is not. Persons who have diabetes for a long period become susceptible to retinal changes that may lead to this degenerative disease of the retina. If this is the case, you are directed to code the diabetes first and use the diabetic retinopathy code 362.01 as the secondary code. If diabetes is not documented, code 362.10 for background retinopathy, is applied.

Try your hand at the following scenario, and see how well you do:

**POSTOPERATIVE DIAGNOSIS**
Partial retinal detachment, single defect.

**PRIMARY PROCEDURE**
REPAIR OF RETINAL DETACHMENT.

**BRIEF HISTORY**
The patient notes flashes of light, followed by a sensation of curtain moving across the eye. Diagnosed with partial retinal detachment.

**PROCEDURE**
The sclera is explored, and stay sutures are placed under the rectus muscles to allow access to the surgical site. Cryotherapy (freezing retinal tissues to seal them) was used. Incisions are repaired by layered closures. A topical antibiotic is applied.
To code this condition, determine the Index to Diseases coding pathway. You will select the main term Detachment and the subterms retina, with retinal defect, single, which suggests a tentative code of 361.01. Now, as always, go to the Tabular List to determine the accuracy of this code, and you will find 361.01 Recent detachment, partial, with single defect. You have the correct code!

Code category 364 covers disorders of the iris and ciliary body. You are probably aware that the iris is the colored area of your eye, located behind the cornea. You might not know that the ciliary body refers to the muscles and tissues that are involved in focusing the eye. The disorders of the iris and ciliary body include inflammations, vascular disorders, degenerations, cysts and adhesions. Iridocyclitis is an inflammation of the iris and ciliary body. Symptoms of this condition include eye pain and redness, sensitivity to light, watering of the eye and decreased vision. Iridoschisis is a condition in which the iris is split into two layers.

Glaucoma, included in code category 365, is a rise in intraocular pressure, which restricts blood flow. In the Tabular List for this category, you will find descriptions such as “open angle” and “angle closure.” Open angle means that the drainage angle is open, but the outflow of aqueous humor, the watery substance that fills the cavity between the lens and the cornea, is blocked. Angle closure, or closed angle, means that the iris closes the drainage angle and obstructs outflow of aqueous humor. The most common condition is primary open-angle glaucoma. If the condition is something other than this, the physician will document it.

We discussed cataracts earlier, in Lesson 24, as a manifestation of diabetes. A variety of conditions that create a cloudy, or calcified, lens that obstructs vision are known as cataracts. This obstruction can be partial or complete, in one eye or both eyes, and in or on the lens. There are many kinds of cataracts, and they are classified by their etiology (cause and time of occurrence), and then by their morphology (size, shape, location). Open your ICD-9-CM manual to the Tabular List to code category 366 Cataract. The first subcategory, 366.0 Infantile, juvenile and presenile cataract, is classified as the etiology. The etiology indicates the individual is younger than age 50 by categorizing infantile, juvenile and presenile. The morphology further divides this subcategory. Subcategory 366.1 Senile cataract is the most common kind of cataract, affecting those persons older than age 50. Cataracts in this group are of unknown cause, painless, and develop as one ages. Cataracts that result from injury to the eye are known as traumatic, again classified by etiology. In subcategory 366.4 you will find cataracts associated with other diseases. In most cases, these cataracts are manifestations of another disease, and you are instructed to code the underlying disease first.
After-cataract is a recurrent capsular cataract or any membrane in the pupillary area that occurs after a procedure has been performed for extraction or absorption of the lens. You will code this condition under category 366.5.

Category 367 includes codes for disorders of refraction and accommodation. Refraction refers to the most common visual problem, refractive error. This defect happens when the refracting media of the eye prevents light rays from coming together into a single focus on the retina. This is due to an irregular cornea curvature, problems with the focusing power of the lens, and the length of the eye. This condition is known as farsightedness, nearsightedness and astigmatism. Farsightedness, or hyperopia, initially causes difficulty in seeing objects that are near and eventually affects distance vision. Nearsightedness, or myopia, is when near objects can be seen clearly while those in the distance appear blurred. Astigmatism is a condition where a perfectly healthy eye has a cornea that is not spherical. A minor degree of this condition is normal and does not require glasses. More severe conditions require special corrective glasses or contact lenses that have no optical power, but rather, correct the curvature. Accommodation is the process by which the eye adjusts itself to focus on near objects.

Eye strain, double vision, color blindness and night blindness are just a few of the visual disturbances included in code category 368. Deutan defect is a disorder that affects only males. This condition is characterized by difficulty distinguishing green and red colors. To code this condition, locate the main term Defect in the Index to Diseases. Locating the subterm deutan provides the tentative code of 368.52. Then turn to the Tabular List to determine the highest level of specificity, and assign your chosen code, 368.52 Color vision deficiencies, Deutan defect, as the correct one.

We will discuss categories 370 and 371 together because they both relate to the cornea. Keratitis, code category 370, is an inflammation of the cornea. Corneal ulcers and superficial inflammation with and without inflammation of the conjunctiva are associated with keratitis. Corneal scars, deposits, edema and degenerations are some of the disorders you will find in code category 371.

The most common disorder of the conjunctiva is conjunctivitis. Conjunctivitis is an inflammation of the conjunctiva. The common symptoms of this acute contagious disease are redness, discharge, itching and burning of the lids. A form of conjunctivitis may be referred to as pink eye. A wedge-shaped conjunctival thickening that advances from the inner corner of the eye toward the cornea is termed pterygium. Other conditions in this code category consist of degeneration, scars, vascular disorders and cysts.

Category 376 covers disorders of the orbit, which should not be confused with the globe. Remember that the globe was also referred to as the eyeball. The orbit is the bone cavity that contains the eyeball. Inflammation, protrusion, recession and deformity are some of the disorders of the orbit. Enophthalmos is the term for recession of the eyeball deep into the eye socket. This condition may be due to atrophy of the orbital tissue, trauma, or surgery or the cause may be unspecified. To code enophthalmos resulting from atrophy of the orbital tissue, you would locate the main term Enophthalmos in the Index to Diseases. The subterms due to and atrophy of the orbital tissue provide 376.51 as the tentative code. After you determine the highest level of specificity for the code in the Tabular List, you should be confident that you’ve coded the condition correctly as 376.51 Enophthalmos due to atrophy of orbital tissue.
Diseases of the Ear and Mastoid Process (380-389)

This section contains codes for diseases and disorders of the external, middle and inner ear; the mastoid process; vertiginous syndromes and other disorders of the vestibular system; otosclerosis; and hearing loss. If applicable, you are to use an additional external cause code to identify the cause of the ear condition. Note that there are some INCLUDES, a few EXCLUDES and three manifestation codes that direct you to code underlying diseases first. Now let’s look at some of the terms you may encounter when you are dealing with diseases of the ear and mastoid process.

- **Otitis** is an inflammation of the ear. The symptoms of otitis usually are pain, fever, abnormalities of hearing, hearing loss, **tinnitus** (ringing, buzzing, roaring or clicking noise in the ear) and **vertigo** (a form of dizziness).

- **Externa** refers to the external auditory canal. **Otitis externa** is an inflammation of the external auditory canal.

- **Media** refers to the middle ear. **Otitis media** is an inflammation of the middle ear.

- **Suppurative** means “to produce pus.” **Acute nonsuppurative otitis media** is a brief, relatively severe inflammation of the middle ear without the discharge of pus.

- **Serous** refers to a clear, watery fluid. **Acute serous otitis media** is a brief, relatively severe inflammation with a collection of clear, watery fluid in the middle ear.

Now that you are a little more comfortable with the terminology, let’s code a disorder from category 380.

**SUBJECTIVE**
A 25-year-old female seeks assistance at an urgent care facility. She complains of an inability to hear out of her left ear and that her balance has been off x 1 day. Patient denies cold or cough and is afebrile. She has no pain in the right ear.

**OBJECTIVE**
Using suction, the physician removes a large ball of wax under direct visualization. No infection is noted. The ear canal is then irrigated.

**ASSESSMENT**
Ear wax.

**PLAN**
The patient is discharged in stable condition.

What is the problem? The problem isn’t that the patient has an ear; rather, the wax is the problem. Turn in the Index to Diseases to locate the main term **Wax**, and you will find **Wax in ear** with code 380.4. Note this tentative code, and then turn to the Tabular List to determine the highest level of specificity. The code description of **Impacted cerumen** is the medical term for wax in the ear, which is included under that description. So you will assign code 380.4 Disorders of external ear, **Impacted cerumen** for this scenario.
The **mastoid process** is the nipple-like projection of the petrous part of the temporal bone, that part which contains the structures of the internal ear. As you know from your terminology, “itis” is an inflammation; therefore, **mastoiditis** is an inflammation of any part of the mastoid process. This condition most often affects children. Acute mastoiditis usually begins as a middle-ear infection (otitis media). In severe cases of this disease, the mastoid air cells are fused together. **Mastoid air cells** are numerous small, intercommunication cavities in the mastoid process.

The **tympanic membrane** constitutes the boundary between the external and middle ear. This thin, tense membrane is also referred to as the **drumhead, drum, eardrum** and **tympanum**. Disorders you will find in code category 384 are **inflammation** and **perforation of the eardrum**.

Disorders of the ear often affect our balance. Code category 386 contains diseases and conditions that include dizziness as a symptom. Open your manual to the **Tabular List**, and note that this category **EXCLUDES** “vertigo NOS.” Meniere’s disease, for instance, causes hearing and balance dysfunction. Symptoms of **Meniere’s disease** include fluctuating deafness, ringing in ears and dizziness.

You will use code category 387 for **otosclerosis**, which is a pathological condition of the bony part of the internal ear, called the **bony labyrinth**. Otosclerosis causes formation of spongy bone, which may cause **bony ankylosis**, or a union of the bones of a joint by proliferation (to grow and increase in number by means of reproduction) of bone cells. This process can result in complete immobility of the bones and cause progressive hearing impairment. Code 387 **INCLUDES** **otospongiosis**, as you will note when you look at the code in the **Tabular List**.

You can find other disorders of the ear in code category 388. These disorders range from degenerative disorders, to noise-induced hearing loss, to the basic earache. **Tinnitus** is also located in this category. **Tinnitus** is defined as abnormal noises in the ear, including ringing, clicking, roaring and buzzing.

Conditions included within code 389 for hearing loss range from conductive and sensorineural hearing loss to deaf mutism. **Conductive deafness** is caused by a defective sound-conducting apparatus of the external or middle ear. Turn to this section in the **Tabular List**, and note that it is subdivided into the specific sites of the ear. **Sensorineural hearing loss**, perceptive hearing loss or deafness, is caused by a defect in nerve conduction.

Time for a breather! We’re now more than one-third of the way through the chapters of the **ICD-9-CM** manual’s **Tabular List**! Are you surprised at how many significant details there are relevant to such apparently small regions of the body as the eyes and the ears? Of course, when you consider how complex the systems of sight and sound are, all the parts, pieces and processes required for them to function properly shouldn’t surprise you too much. Now, once again, complete the following Practice Exercise to review some of the details you’ve just learned.

### Step 10: Practice Exercise 25-3

Determine the correct ICD-9-CM code(s) for the following conditions.

1. **Malignant myopia**
   
   **ICD-9-CM code:**

2. **Macular degeneration, senile disciform**
   
   **ICD-9-CM code:**
3. Pink eye  
   ICD-9-CM code:

4. Orbital hemorrhage  
   ICD-9-CM code:

5. Bullous myringitis  
   ICD-9-CM code:

6. Ménière’s disease  
   ICD-9-CM code:

7. ICD-9-CM Coding Challenge
   
   PREOPERATIVE DIAGNOSIS
   Protrusion of auricle.

   POSTOPERATIVE DIAGNOSIS
   Acute mastoiditis.

   PRIMARY PROCEDURE
   COMPLETE MASTOIDECTOMY.

   INDICATIONS FOR PROCEDURE
   A 3-year-old patient has a history of otitis media that has not responded to multiple treatments of antibiotics. Review of recent CT reveals a fusion of mastoid air cells.

   PROCEDURE
   The mastoid cortex (a plate of bone on the lateral surface of the mastoid process of the temporal bone) is removed. The fusion of mastoid air cells is exposed. The infected mastoid air cells are removed by a curette and drill. A temporary drain is placed, and the incision is sutured. The patient receives IV antibiotics. No complications are noted.

   ICD-9-CM code:

---

**Step 11: Review Practice Exercise 25-3**

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

**Step 12: Diseases of the Circulatory System (390-459), Part 1**

Chapter 7 of the *Tabular List* focuses on the circulatory system. This major body system includes the heart and blood vessels. As you will learn, many diseases of the heart are closely related. For example, one disease may be the cause of another, or the diseases may occur in conjunction with each other. Because the circulatory system includes so many diseases and related codes, we are once again dividing our discussion into two major sections. In the first section, we discuss acute rheumatic fever (codes 390 through 392), chronic rheumatic heart disease (codes 393 through 398), hypertensive disease (codes 401 through 405) and ischemic disease (codes 410 through 414). You will have several opportunities to practice coding some diagnoses within these disease categories. So let’s get started!
Acute Rheumatic Fever (390-392)

**Acute rheumatic fever** is a febrile disease that occurs mainly in children or young adults. Rheumatic fever usually appears weeks after the person has experienced untreated or inadequately treated strep throat or scarlet fever. Symptoms of rheumatic fever include fever, joint pain, lesions of the heart, abdominal pain, rash or nodules on the skin and chorea. The heart lesions can eventually affect the heart valves and the normal blood flow, which would lead to disease diagnoses in the subsequent section of the *Tabular List*, which focuses on rheumatic heart disease. Because of this relationship, rheumatic fever can be categorized “without mention of heart involvement,” “with heart involvement” or as “Rheumatic chorea.” Turn to the *Tabular List* to find more information about coding this condition. Rheumatic fever with mention of heart involvement **EXCLUDES** any diagnosis that indicates chronic heart diseases of rheumatic origin unless rheumatic fever is also present or there is evidence of recrudescence or activity of the rheumatic process. **Chorea** is the occurrence of irregular, spasmodic, involuntary movements of the limbs or facial muscles. In this section, chorea is linked with rheumatic fever and streptococcal infections. The *Tabular List* for the rheumatic chorea code **EXCLUDES** Huntington's chorea.

Let's get right into some coding practice related to rheumatic fever to see how well you understand this section of the *Tabular List*. See how accurately and quickly you can code this description: A patient is diagnosed with acute rheumatic fever with myocarditis.

To accurately code this scenario, would you begin with *fever* or *myocarditis* as your main term? One coding pathway is more direct, but let's take a look at both options. First, turn to the *Index to Diseases* and locate the main term *Myocarditis*. The subterm *rheumatic* provides us with code 398.0, but look further, to the phrase “active or acute.” You know the condition is acute, so your tentative code would be 391.2. This is not a particularly straightforward coding pathway, so let's try the other option. Use the coding pathway of *Fever, rheumatic, with heart involvement, myocarditis* to locate the tentative code 391.2. Now you will need to determine the highest level of specificity using the *Tabular List*. Based on the information you find there, you can confidently assign 391.2 Rheumatic fever with heart involvement, Acute rheumatic myocarditis for the given diagnosis of acute rheumatic fever with myocarditis.

Chronic Rheumatic Heart Disease (393-398)

As we mentioned previously, **rheumatic heart disease** is the condition that develops when the heart valves are damaged by rheumatic fever. This resulting condition may be a life-long disease. To avoid contracting rheumatic heart disease, one must prevent rheumatic fever from ever occurring. In this section, you will find abnormalities of the heart valves, such as *stenosis, insufficiency* and other valve diseases. **Stenosis** is a narrowing, or stricture, of the valve. **Insufficiency** indicates a malfunction and/or narrowing of the valve. The narrowing and malfunction of the various valves restrict the heart’s normal blood flow. These valves are flaps, or cusps, within the heart. Codes for the *mitral valve*, the *aortic valve* and a *combination* of the mitral and aortic valves are subdivided into categories 394, 395 and 396. *Tricuspid, pulmonary* and *unspecified* valves are included within the 397 code category. As you look through this portion of the *Tabular List*, you will note that in several subcategories the designated code **EXCLUDES** diseases that are not specified as rheumatic.
The bicuspid, or more commonly called, mitral valve is located between the left atrium and the left ventricle of the heart. The aortic valve is positioned between the left ventricle and the ascending aorta. The tricuspid valve is located between the right atrium and right ventricle. The pulmonary valve lies at the entrance to the pulmonary trunk, coming from the right ventricle.

Okay—let’s code the following scenario associated with what you’ve just read about chronic rheumatic heart disease.

SUBJECTIVE
A 47-year-old male is admitted to the emergency department. He has been feeling fatigued and has had a cough and swollen feet for the past week. Two hours prior to admission, he was awakened by difficulty breathing and chest tightness.

OBJECTIVE
Blood pressure is normal. Patient is afebrile. HEENT normal. Cardiovascular exam notes rumbling apical diastolic murmur with presystolic accentuation. Crackles heard on respiratory exam. Feet are swollen. Chest x-ray, echocardiogram, and ECG are ordered. Chest x-ray shows signs of pulmonary edema.

ASSESSMENT
Patient suffers from mitral stenosis.

PLAN
He will be admitted by his PCP for additional work-up.

To code this scenario, you will need to determine the coding pathway to follow in the Index to Diseases. Is the problem that the patient has a mitral valve? No, the problem is the stenosis, or narrowing, of that valve. So begin with the main term Stenosis in the Index to Diseases. Once you’ve located this term, find the subterm mitral, and you have the tentative code 394.0. But, as you know, you aren’t done until you turn to the Tabular List to determine the highest level of specificity. In the Tabular List, code 394.0 has no inclusions, exclusions or additional notes, so you can confidently assign 394.0 Diseases of the mitral valve, Mitral stenosis, for this condition.
**Hypertensive Disease (401-405)**

**Hypertension** refers to high blood pressure. The diagnosis of hypertension is confirmed in adults when the average of two or more blood pressure measurements on at least two visits reveal a diastolic (bottom number) pressure of 90 mmHg or higher or a systolic (top number) pressure of 140 mmHg or higher.

*Benign hypertension* refers to a relatively mild degree of hypertension of prolonged or chronic duration. *Malignant hypertension* is an accelerated, severe hypertensive disorder, with progressive vascular damage and a poor prognosis. A diagnosis of hypertension without further qualification is classified as *unspecified*.

The *Index to Diseases* includes a table under the main term *Hypertension* with subterms indexed in the usual way. The three columns included in this table provide codes for *Malignant*, *Benign* and *Unspecified*. If the conditions are specified by the dictation you receive, you might code many conditions in combination with hypertension.

**Hypertensive Heart Disease**—Certain heart conditions are assigned to code group 402 *Hypertensive heart disease* when a causal relationship is stated due to hypertension. Note that the 402 group of codes includes *heart failure*. If heart failure is stated in the dictation, an additional code is required to identify the type of heart failure. When a heart condition and hypertension are documented but are not linked as causal relationships, code the two conditions separately.

**Hypertension and Chronic Kidney Disease**—The *ICD-9-CM* presumes a cause-and-effect relationship between hypertension and chronic kidney disease, so you should code these combined diagnoses to group 403 *Hypertensive chronic kidney disease*, when classified as renal failure with hypertension.

**Hypertensive Heart and Chronic Kidney Disease**—When a heart condition and a kidney condition both exist, assign a combination code from code group 404 *Hypertensive heart and chronic kidney disease*. Fifth digits are provided to indicate whether *congestive heart failure*, *renal failure* or *both* are present. For this category, use an additional code to specify the type of heart failure.

**Essential hypertension**, also known as *primary hypertension*, is the state of having elevated blood pressure with no apparent cause. Modern drugs and appropriate changes in diet and lifestyle are often successful as treatment for this condition. When elevated blood pressure is documented, be careful not to assume that hypertension is the correct diagnosis. Another specific code exists for elevated blood pressure, and it's not in this section.

Hypertensive heart disease is the description used for any condition due to hypertension classifiable to codes 429.0 through 429.3, 429.8 and 429.9. You are directed to use an additional code to specify the type of heart failure if it is documented. When the causal relationship between hypertension and heart disease is not documented, code each condition separately.

So let’s code for hypertensive cardiovascular disease with CHF (congestive heart failure). Based on what we just said, this condition requires two codes for accurate coding. Locate the Hypertension table in the *Index to Diseases*. You will quickly find *Hypertension* because it is the main term in the Hypertension table, and applies to all subterms in that table. So the coding pathway is *hypertension*, *cardiovascular disease*, with *heart failure*. Malignant or benign is not documented, so you move to the *Unspecified* column of the Hypertension table. Then turn to the *Tabular List* to determine the highest level of specificity for the tentative code 402.91.
Although this does seem to be the correct code, you aren’t done coding just yet! Remember that you need to use an additional code to specify the type of heart failure. So now locate Failure as the main term in the Index to Diseases. The subterm congestive provides the tentative code of 428.0 and directs you to “see also Failure, heart.” The coding pathway Failure, heart, congestive provides the same tentative code. Once again, turn to the Tabular List to determine the highest level of specificity. You can now assign codes 402.91 Hypertensive heart disease Unspecified, With heart failure and 428.0 Congestive heart failure, unspecified for accurate coding of this condition.

Terminology: Nephros is Greek for kidney while the Latin term for kidney is renal.

The ICD-9-CM presumes a cause-and-effect relationship between hypertension and kidney disease, so you should code these combined diagnoses to group 403 Hypertensive chronic kidney disease. Turn to the Tabular List to review the fifth-digit subclassification box for hypertensive kidney disease.

When a heart condition and a kidney condition both exist, you will assign a combination code from code group 404 Hypertensive heart and chronic kidney disease. You will presume a relationship between the hypertension and renal failure, whether the relationship is documented or not. The relationship between hypertension and heart and chronic kidney disease is discussed in Section IV Diagnostic Coding and Reporting Guidelines for Outpatient Services in the front of the ICD-9-CM manual. If in doubt ask the physician so that you will assign accurate diagnostic codes for this hypertension category.

Let’s code malignant hypertensive cardiovascular renal disease for practice. Once again, turn to the Hypertension table in the Index to Diseases. Then locate the subterm cardiovascular renal in the table. The Malignant column provides the tentative code of 404.00. You will determine the highest level of specificity in the Tabular List, and based on the information you find there, assign 404.00 Hypertensive heart and chronic kidney disease, Malignant, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified as the accurate code. However, the notes found with the fifth-digit subclassification instruct you to use an additional code to identify the state of the chronic kidney disease. Return to the Index and locate the coding pathway Disease, kidney, chronic. Code 585.9 is provided as the tentative code. A quick check with the Tabular List verifies 585.9 Chronic kidney disease, unspecified is correct because the stage is not documented.

Secondary hypertension affects about 10 percent of all cases of hypertension. Unlike essential hypertension, this condition has an identifiable cause. Secondary hypertension is due to or associated with a variety of primary diseases, such as renal disorders, disorders of the central nervous system, endocrine diseases and vascular diseases. When you code secondary hypertension, two codes are necessary to identify the underlying disease and the hypertension.

Ischemic Heart Disease (410-414)

Any of a group of acute or chronic cardiac disabilities resulting from insufficient supply of oxygenated blood to the heart is known as ischemic heart disease. This section includes conditions such as myocardial infarction, angina pectoris and aneurysms.
ICD-9-CM Coding—From Mental Disorders to Circulatory System

Myocardial infarction (MI) is a sudden insufficiency of blood supply to an area of the heart muscle, usually as the result of a coronary artery occlusion. In the ICD-9-CM manual, the area of the heart muscle is subdivided into anatomical sites at which the MI might occur. Diagnostic statements do not always mention the affected wall, but you can usually find this information in the EKG report. If that report is not available, you will code to “Unspecified site.” Turn to the Tabular List to review the fifth-digit subclassifications provided for the myocardial infarction category 410. Select the fifth digit to indicate that the current infarction is unspecified, the initial episode of care, or a subsequent episode of care for the same infarction. Patients sometimes experience a second infarction that involves another wall. In that case, you would code for both infarctions according to the site involved, and you would assign a fifth-digit 1 to indicate an initial episode of care for each infarction.

Myocardial infarctions are also a challenge to code. To help you understand the coding hierarchy for MIs, here is a summary of the codes you would use:

1. **410 Acute myocardial infarction**—Use this classification if the documented duration of the MI is eight weeks or less.

2. **414.8 Other specified forms of chronic ischemic heart disease**—Use this classification after the acute period has expired.

3. **412 Old myocardial infarction**—Use this category for “old,” healed MIs that show no symptoms.

The eight-week rule for coding MIs, combined with the fifth digits for code 410, can cause diagnosis difficulties for both you as the healthcare document specialist and the insurance payer. According to ICD-9-CM rules, you use the acute diagnosis throughout the entire eight-week phase of treatment. If the patient is dismissed from the hospital, and then readmitted with a new MI during the eight-week time period, you will assign the fifth-digit 1, which indicates an initial episode of care. However, if the second admission is related to the previous admission and not to a new MI, it is a subsequent episode of care, and you would assign the fifth-digit 2. Look again in the Tabular List at code 410. Do you see the box that says “The following fifth-digit subclassification is for use with category 410:”? This gives you the information you need to assign the fifth digit correctly!

Here’s another scenario for you to review, and demonstrate your increasing coding skills pertaining to heart disease. When you’ve completed your assessment and identified the code or codes you would assign to the diagnosis, compare your steps to the summary that follows the scenario to see how well they match.

**CHIEF COMPLAINT**
Chest pain.

**HISTORY OF PRESENT ILLNESS**
The patient is a white male who presents with a chief complaint of “chest pain.” The patient has a prior history of coronary artery disease. The patient presents today stating that his chest pain started yesterday evening and has been somewhat intermittent. The severity of the pain has progressively increased. He describes the pain as a sharp and heavy pain which radiates to his neck and left arm. He ranks the pain a 7 on a scale of 1-10. He admits some shortness of breath and diaphoresis. He states that he has had nausea and 3 episodes of vomiting tonight. He denies any fever or chills. He admits prior episodes of similar pain prior to his PTCA in 19XX. He states the pain is somewhat worse with walking and seems to be relieved with rest. There is no change in pain with positioning. He states that he took 3 nitroglycerin tablets sublingually over the past 1 hour, which he states has partially relieved his pain. The patient ranks his present pain a 4 on a scale of 1-10. The most recent episode of pain has lasted 1 hour. The patient denies any history of recent surgery, head trauma, recent stroke, abnormal bleeding such as blood in urine or stool or nosebleed.
PAST MEDICAL HISTORY
Hypertension, coronary artery disease, atrial fibrillation, status post PTCA in 19XX.
Medications: Aspirin 81 mg daily. Humulin N insulin 50 units in a.m. HCTZ 50 mg daily. Nitroglycerin
1/150 sublingually p.r.n. chest pain.
ALLERGIES: PENICILLIN.
Social history: Denies alcohol or drugs. Smokes 2 packs of cigarettes per day. Works as a banker.
Family history: Positive for coronary artery disease (father and brother).

REVIEW OF SYSTEMS
All other systems reviewed and are negative.

PHYSICAL EXAMINATION
GENERAL: The patient is a 40-year-old white male. The patient is moderately obese, but he is otherwise
well developed and well nourished. He appears in moderate discomfort, but there is no evidence of distress.
He is alert and oriented to person, place and circumstance. There is no evidence of respiratory distress. The
patient ambulates without gait abnormality or difficulty.
HEENT: Normocephalic, atraumatic head. Pupils are 2.5 mm, equal, round and react to light bilaterally.
Extraocular muscles are intact bilaterally. External auditory canals are clear bilaterally. Tympanic
membranes are clear and intact bilaterally.
NECK: No JVD. Neck is supple. There is free range of motion and no tenderness, thyromegaly or
lymphadenopathy noted. Pharynx: Clear, no erythema, exudates or tonsillar enlargement.
CHEST: No chest wall tenderness to palpation. Heart: Irregularly irregular rate and rhythm, no murmurs,
gallops or rubs. Normal PMI. Lungs: Clear to auscultation bilaterally.
ABDOMEN: Soft, nondistended. No tenderness noted. No CVAT.
SKIN: Warm, diaphoretic, mucous membranes moist, normal turgor, no rash noted.
EXTREMITIES: No gross visible deformity, free range of motion. No edema or cyanosis. No calf or thigh
tenderness or swelling.

COURSE IN EMERGENCY DEPARTMENT
The patient’s chest pain improved after the sublingual nitroglycerin and completely resolved with the
nitroglycerin drip at 30 ug/min. He tolerated the TPA well. He was transferred to the CCU in a stable condition.

IMPRESSION
Acute inferior myocardial infarction.

How did you do? Let’s compare notes. Begin by locating the main term Infarction in the Index to Diseases,
and then the subterms myocardial, inferior. This coding pathway provides the tentative code of 410.4
. Determine the highest level of specificity in the Tabular List. Note that code 410.4 is for an Acute myocardial
infarction, Of other inferior wall. The shaded box under code 410 indicates that a fifth-digit subclassification
is required for accurate coding of this disease. And so you use 1 as the fifth digit because the initial episode is
documented, and you assign 410.41 for this scenario.

This is a lot of information to take in! Let’s pause here and do a quick review. If there are sections you’re
struggling with, be sure to review carefully and call your instructor if you need assistance.
Step 13: Practice Exercise 25-4

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Rheumatic chorea
   ICD-9-CM code:

2. Rheumatic endocarditis
   ICD-9-CM code:

3. Benign essential hypertension
   ICD-9-CM code:

4. Secondary hypertension due to Cushing’s disease
   ICD-9-CM code:
   ICD-9-CM code:

5. Acute anterolateral myocardial infarction, initial episode
   ICD-9-CM code:

6. ICD-9-CM Coding Challenge

   PREOPERATIVE DIAGNOSIS
   Chronic renal failure with hypertension, with need for dialysis access due to end-stage renal disease.

   POSTOPERATIVE DIAGNOSIS
   Same.

   PRIMARY PROCEDURE
   PLACEMENT OF ARTERIOVENOUS FISTULA.

   PROCEDURE
   After informed consent, this 25-year-old female was brought to the operating room and placed in a supine position on the table. After induction of anesthesia, the patient was prepped and draped appropriately. I identified the cephalic vein, marked it and the radial artery. An area was marked between these two, and the area was infiltrated with Marcaine and epinephrine prior to making the incision. I dissected out the cephalic vein first, followed by the radial artery. The distal end of the vein was clamped and transected. I then occluded the radial artery and both ends. Bleeding was controlled appropriately with clamps.

   I then performed an end-to-end anastomosis with Gore-Tex sutures. Prior to completing the anastomosis, the fistula was flushed with heparinized saline. The procedure was completed with the final sutures, and the fistula was opened to evaluate the flow in the vessel. Good thrill (vibration) and bruit (harsh or musical sound) were present over the entire area. The subcutaneous tissue and skin were closed appropriately, and sterile dressings were applied. The fistula will be evaluated in the next 24 hours for dialysis use.

   ICD-9-CM code:
   ICD-9-CM code:
Step 14: Review Practice Exercise 25-4

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 15: Diseases of the Circulatory System (390-459), Part 2

In this second part of our discussion about Chapter 7 of the Tabular List, you will learn about how to code diseases of pulmonary circulation (codes 415 through 417); other forms of heart disease (codes 420-429); cerebrovascular disease (codes 430 through 438); diseases of the arteries, arterioles and capillaries (codes 440 through 449); diseases of the veins and lymphatics and other diseases of the circulatory system (codes 451 through 459).

This lesson is loaded with coding information and details, so if you are feeling at all overwhelmed at this point, stop for a few minutes and reflect on how much you have already learned, and consider how familiar many of the details from this and the previous lessons about ICD-9-CM coding have already become. You’re doing great! So take a few slow, deep breaths, and let’s continue the journey over some new coding pathways.

Diseases of Pulmonary Circulation (415-417)

Diseases of pulmonary circulation include acute pulmonary heart disease, chronic pulmonary heart disease and other diseases of the pulmonary circulation. A pulmonary embolism is the closure of the pulmonary artery or branch as the result of a blood clot. Infarction is necrosis of lung tissue as the result of an obstruction of the arterial blood supply. The infarction is usually the result of an embolism. Primary pulmonary hypertension is a rare disease characterized by an increase in pulmonary circulation with no apparent cause.

Take a look at the Tabular List for this range of codes, and search for inclusions, exclusions and notes to assist you with accurate coding. For example, notice that code 415.0 EXCLUDES “cor pulmonale NOS;” you are directed to use code 416.9 instead. Code 415.1 EXCLUDES pulmonary embolisms and infarctions that are complications of abortion (codes 634 through 638 with a fourth digit of .6 and code 639.6); ectopic or molar pregnancy (code 639.6); pregnancy, childbirth or the puerperium (codes 673.0 through 673.8); and personal history of pulmonary embolism (code V12.55). Also note that codes within category 417 EXCLUDES “congenital arteriovenous fistula, congenital aneurysm and congenital arteriovenous aneurysm” and alternative codes are included for use with these conditions.

Other Forms of Heart Disease (420-429)

This section includes codes for inflammations, disorders and failures of the heart. Although this group of codes is quite large, you should find that coding these conditions is fairly straightforward. And, as always, if you have questions about anything in this or any other section, call your instructor. Remember, we want you to succeed, and someone will be available to answer your questions!
Cerebrovascular Disease (430-438)

Cerebrovascular diseases (CVDs) belong to a group of conditions that relate to any disease affecting an artery supplying blood to the brain. Intracranial hemorrhage, occlusions, transient cerebral ischemia and late effects of cerebrovascular disease are some conditions you will find in this section. This group of codes INCLUDES conditions that are a result of hypertension. You will need to use an additional code for those conditions to identify the presence of hypertension.

Ruptured blood vessels in the brain result in intracranial hemorrhages. There are four basic types of intracranial hemorrhage, classified according to where the hemorrhage occurs: subarachnoid (430), intracerebral (431), extradural (432.0) and subdural (432.1). To locate the ICD-9-CM code for each of these conditions, use the main term Hemorrhage, and then the type of hemorrhage as the subterm. This type of hemorrhage is nontraumatic, or not caused by trauma.

Subarachnoid hemorrhages, code category 430, are located on the surface of the brain. Another source of subarachnoid hemorrhages is ruptured congenital aneurysms located along the middle or anterior cerebral arteries or the communicating branches, known as the Circle of Willis. These small aneurysms are known as berry aneurysms, and they are frequently lethal if they are not recognized and treated with surgery.

Intracerebral hemorrhage is bleeding within the brain caused by ruptured blood vessels in the head. It is one of the three main mechanisms by which a stroke can occur. The blood can irritate the brain tissue, causing swelling, or it can collect in a mass, referred to as a hematoma. Either of these conditions can cause pressure on the brain tissues and can rapidly destroy them. Intracerebral hemorrhages are confirmed by a CT or MRI; treatment may range from medication to surgical removal of the hematoma.

Extradural hemorrhages (also known as epidural hemorrhages) are located in the space between the skull and the dura, or brain lining. These hemorrhages tend to form slowly over a period of several hours. Because they form so slowly, the hemorrhages can often be drained before they cause serious consequences. If they are left untreated, epidural hemorrhages are fatal.

Bleeding between the outer covering of the brain (dura) and the brain's surface is referred to as subdural hemorrhage.
Here's another sample to code. You'll probably have this one figured out as quickly as you can locate the codes in your manual.

**POSTOPERATIVE DIAGNOSIS**
Subdural hemorrhage.

**PRIMARY PROCEDURE**
CRANIOTOMY.

**BRIEF HISTORY**
A 76-year-old male complains of headache, weakness, slurred speech and lethargy. Patient does not recall hitting his head. CT confirms subdural hemorrhage.

**PROCEDURE**
An incision is made in the scalp, and the scalp is peeled away. A bur drill is used to drill into the skull to access the hematoma. The dura mater is then incised to reach the hemorrhage under the dura mater. The hematoma is decompressed, and the bleeding is controlled. The dura is sutured closed, followed by repositioning and suturing of the scalp.

The correct code can be determined fairly easily on this one. Go to the *Index to Diseases* using the coding pathway of main term *Hemorrhage* and subterm *subdural*. You should note a tentative code of **432.1**. Then go to the *Tabular List* to determine highest level of specificity. As you probably already know, the accurate code to assign is **432.1 Subdural hemorrhage**. Great job!
The next two categories in the “Cerebrovascular Disease (430-438)” section deal with occlusions, a term that refers to the act of closing, or the state of being closed. An obstruction of the cerebral or precerebral arteries can result in a cerebral infarction. You will note the fifth-digit subclassification box in the Tabular List for categories 433 and 434. Use of the fifth digit here indicates whether or not a cerebral infarction was mentioned. Categories 433 and 434 also instruct you to use an additional code, if applicable, to identify status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility, noting V45.88 is the correct code to apply. The drugs tPA (tissue plasminogen activator) and rtPA (recombinant tissue plasminogen activator) are given within three hours of a stroke, after which its detriments may outweigh its benefits of breaking down blood clots.

The last code category we will discuss in this section is that for late effects of cerebrovascular disease, 438. Do you remember learning about late effects? A late effect is the residual condition produced after the acute phase of an illness or injury has terminated. If a residual condition is documented with the late effect, you will code that condition first, and then the late effect. Turn to code group 438 in your manual and be sure to read the notes associated with it, as well as all the various subcategories and the EXCLUDES associated with code 438.5.

Diseases of Arteries, Arterioles, and Capillaries (440-449)

This section contains diagnosis codes for atherosclerosis, aortic aneurysms, embolisms, thrombosis and a variety of other diseases that pertain to the blood vessels. An aneurysm is a sac formed by the dilation of the wall of an artery, vein or the heart. The sac is filled with fluid or clotted blood, often forming a pulsating tumor. When this sac is formed at the site of the aorta, it is termed aortic aneurysm. An embolism is when an artery is suddenly blocked by a clot or foreign material. Thrombosis is the formation, development or presence of a thrombus, or an aggregation of blood factors. These blood factors are primarily platelets and protein with entrapment of cellular elements. There are many INCLUDES and EXCLUDES listed in these code groups, so be sure to read the details closely when you code from this section.
**Atherosclerosis** is a common disorder of the arteries. This condition is set in motion when cells that line the arteries are damaged. **Plaque** develops at the site of the damage. These deposits impede or eventually shut off the blood flow. This condition can be specified to the aorta, the renal artery or the extremities. Atherosclerosis of the extremities is more common in the legs than in the arms. When a person with this condition runs or walks a long way, the blood supply is inadequate, which results in cramping of the legs. Atherosclerosis can be prevented with a low-fat, low-cholesterol and low-salt diet.

Now let’s try your skills coding for an aneurysm of the subclavian artery. To begin, locate the main term **Aneurysm** in the Index to Diseases. Locating the subterm **subclavian** provides the tentative code of **442.82**. Turn to the Tabular List to determine the highest level of specificity. You can easily and confidently assign **442.82 Other aneurysm, Subclavian artery** as the correct code.

### Diseases of Veins and Lymphatics, and Other Diseases of the Circulatory System (451-459)

In this section of Chapter 7, you will see conditions that pertain to the veins and lymph channels, **hypotension** and other disorders of the circulatory system. Code categories 451 through 456 cover inflammation, obstruction, dilation and distention of veins. **Hemorrhoids** are an example of a varicose condition of external hemorrhoidal veins and can be found in code category 455. The Tabular List provides inclusions and exclusions to assist you with your diagnostic coding of these conditions. Category 451 also notes to use an additional E code to identify the drug if the condition is drug induced.

Note in the Tabular List that the conditions of the lymph channels in code group 457 are specifically for noninfectious disorders. It’s also important to know that **lymphedema** may or may not be due to a mastectomy but that it is caused by a reduction in the lymphatic circulation. **Lymphangitis** is an inflammation of the lymph vessel.

The condition of abnormally low blood pressure is known as **hypotension**. This condition is covered in the code group 458. **Orthostatic** or **postural, hypotension** refers to a drop in the blood pressure when there is a sudden change in body position. Hypotension caused by medication is referred to as **iatrogenic hypotension**.

### Step 16: Practice Exercise 25-5

Determine the correct ICD-9-CM code(s) for the following conditions.

1. **Idiopathic pulmonary hypertension**
   
   ICD-9-CM code:

2. **Wenckebach’s phenomenon**
   
   ICD-9-CM code:

3. **Arteriolosclerosis of the extremities**
   
   ICD-9-CM code:

4. **Varicose veins of the lower extremity**
   
   ICD-9-CM code:
5. ICD-9-CM Coding Challenge

PREOPERATIVE DIAGNOSIS
Sick sinus syndrome.

POSTOPERATIVE DIAGNOSIS
Sick sinus syndrome.

PROCEDURE PERFORMED
DUAL-CHAMBER PACEMAKER AND ATRIAL AND VENTRICULAR LEADS.

INDICATIONS FOR PROCEDURE
This patient has been experiencing increasing episodes of sick sinus syndrome which are not able to be controlled with medication. A dual-chamber pacemaker was recommended after discussion with the patient and his family. This gentleman and his family were informed of all potential complications, including infection, hematoma, pneumothorax, hemothorax, myocardial infarction, and possibly death. The patient has agreed to the procedure and signed the consent.

PROCEDURE
The patient was admitted to the cardiac catheterization lab and placed on the table. He was prepped and draped in the usual manner. Adequate anesthesia was achieved, and the procedure was started. The pacemaker pocket was created with hemostasis. The pocket was placed in the left infraclavicular area. A 9 French peel-away sheath was used to introduce an atrial and a ventricular lead into their correct position. The leads were sutured and secured.

The pulse generator was then connected to the leads. The pocket was prepared for insertion of the generator. The pacemaker and leads were placed in the pocket, and the pocket was closed in 2 layers.

The patient tolerated the procedure well and was discharged to the postanesthesia care unit.

ICD-9-CM code:

Step 17: Review Practice Exercise 25-5

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 18: Lesson Summary

Hurray! You’ve completed all the new information in this lesson. You should be feeling really proud of your progress toward becoming a healthcare document specialist! You’ve made it through an introduction to Chapters 5 through 7 of the ICD-9-CM manual’s Tabular List, and you’ve learned a lot of valuable coding information in the process.

Do you know how it feels to be training for some challenging physical event? Maybe even for a marathon? If you do, you might recognize some things in common between doing that and working your way through these lessons. There are periods of intensity when you wonder whether you’re going to reach the smaller goals you set for yourself along the way to the finish line. Each time you do, you are inspired and feel even more energy for the next step. You are in the final lap of this lesson and well on your way toward your goal of consistently using ICD-9-CM codes correctly!
To finish this part of your training to become a healthcare document specialist, take whatever time you need to go back and review anything in this lesson that you still have questions about, or any coding exercises that you're not totally comfortable with. If anything still confuses you, remember that you can call your instructor and ask for help. When you're ready, go ahead and take the Quiz. Then take a few more deep breaths, clear your head and you’ll be ready to start fresh with the next lesson.

**Step 19: Quiz 17**

Once you’ve mastered the course content, locate this Quiz in your Online Course or your Assignment Pack. Read and follow the Quiz instructions carefully.
Fine job!
Your accuracy and speed will improve with practice.

Let’s move on to the next chapter of the ICD-9-CM Tabular List!

Turn the page to discover how to code conditions from the respiratory system.

No need to wait for your Quiz results to move on to the next lesson.
Look how far you’ve come! Could you have imagined on opening your first lesson that you would soon be able to translate physician dictation into medical diagnoses? Not only that, but as you code the diagnoses, you’re learning more about the conditions found in the ICD-9-CM to ensure accurate coding. You’ve made it through the first seven chapters of the ICD-9-CM, and that’s quite an accomplishment.

Are you perfect in your skills? Of course not. Will you improve? Absolutely. You will wrap up the final chapters of the ICD-9-CM in this course, and then will move on to the procedural coding lessons. We’ll focus on each section of the CPT so you have a firm grasp of the procedural coding process. Once you have a good understanding, we’ll show you how the ICD-9-CM and CPT codes work together so that the provider receives proper reimbursement for his services.

So look back at the distance you’ve come in your studies, and give yourself a hearty pat on the back. Then look ahead to further success, and take the time now to fill out the order form for Course Four.

You have three simple ways to order your next course:

- Order online—www.at-homeprofessions.edu (Click on Student login to access your order form.)
- By phone—1-800-359-3455
- By mail—Mail in the course order form enclosed with your course materials.

You are one step closer to a new career!
Lesson 26
ICD-9-CM Coding—
From Respiratory System to Complications of Pregnancy

Step 1: Learning Objectives for Lesson 26

When you have completed the instruction in this lesson, you will be trained to do the following:

● Define diseases of the respiratory, digestive and genitourinary systems and complications of pregnancy, childbirth and the puerperium.

● Explain the exclusions, inclusions and rules related to Chapters 8 through 11 of the Tabular List in the ICD-9-CM manual.

● Identify the diagnoses, outline the coding pathway and assign the final code for documented disorders and diseases.

Step 2: Lesson Preview

Are you well rested and ready to expand your understanding of ICD-9-CM coding? Great! This is another lesson in which you’ll want to both stay focused and divide your study time into reasonable “chunks,” because it covers a lot of material. You will be learning about and working with all the ICD-9-CM codes for Chapters 8, 9, 10 and 11 of the Tabular List. These include the codes for diseases of the respiratory, digestive and genitourinary systems and the codes for complications of pregnancy, childbirth and the puerperium.

We’ll be following the same routine that you’ve become accustomed to in recent lessons—lots of definitions and descriptions of diseases and conditions; explanations to help you find the correct codes in the Index to Diseases and the Tabular List; and, as always, plenty of examples and Practice Exercises for your hands-on practice. So let’s get started!

To help make sure you don’t get confused as you code the Practice Exercises and scenarios throughout the following ICD-9-CM coding lesson, it’s important to keep in mind that we are focusing for now only on ICD-9-CM codes—not CPT codes. You will see physician notes and documentation about specific procedures in some of the scenarios we use just because we want you to practice with authentic examples. But remember that you will code only the diagnoses during these lessons—you’ll have plenty of time and lots of practice combining procedural and diagnostic codes in later lessons, after you’ve become more familiar and comfortable with the ICD-9-CM codes.
Step 3: Diseases of the Respiratory System (460-519)

We start this lesson with Chapter 8 of the Tabular List, which includes codes for diseases of the respiratory system. Among the diseases in this chapter are respiratory infections, other diseases of the upper respiratory tract, pneumonia and influenza, COPD (chronic obstructive pulmonary disease) and allied conditions, pneumoconioses and lung diseases and other diseases of the respiratory system. As with previous lessons and chapters, we move through our review of Chapter 8 by looking into the code categories within each section.

At the beginning of Chapter 8 in the Tabular List, you are instructed to use an additional code to identify the infectious organism. This note applies to the entire chapter. So keep in mind that when you are coding diseases of the respiratory system, and the infectious organism causing the disease is documented, you must code for that organism as well as for the respiratory disease.

Acute Respiratory Infections (460-466)

Acute respiratory infections include the common cold, acute sinusitis, acute pharyngitis, acute laryngitis and acute bronchitis. This section excludes pneumonia and influenza, and directs you to use codes 480.0 through 488.19 instead for those conditions. An important note related to this section has to do with the term acute. The term might be required, or it may be a nonessential modifier in the categories included here. You will not find chronic infections in this code category, and the Tabular List often directs you to the accurate code.

An “acute inflammation of mucous membranes extending from the nostrils to the pharynx” is termed acute nasopharyngitis, but the condition is known as the common cold. This category (460) excludes chronic nasopharyngitis, pharyngitis, rhinitis and sore throat. Category 465 codes “Acute upper respiratory infections of multiple or unspecified sites.” This category excludes upper respiratory infections due to influenza and streptococcus. An upper respiratory infection is often referred to as a URI—an important acronym to learn and remember.

Are you ready to try your hand at coding another scenario, this time relating to a respiratory system condition? Great—go for it, and see how quickly and accurately you can complete the coding.

CHIEF COMPLAINT
Respiratory distress and fever x 12 hours. HISTORY OF PRESENT ILLNESS
This 20-month-old Caucasian male began coughing yesterday, late afternoon. Fever and coughing were aggravated in the evening. Patient was given Tylenol and slept well. Today at 8:00 a.m., the patient showed respiratory distress and increased mucous secretions.

PAST HISTORY
The patient experienced similar symptoms 4 months ago, but they were relieved spontaneously. The patient is the product of a normal spontaneous vaginal delivery. Birth weight: 6 pounds 1 ounce.
ALLERGIES: NONE.
Family history: No family history of maternal or paternal diabetes, hypertension or tuberculosis.

REVIEW OF SYSTEMS
Noncontributory.
PHYSICAL EXAMINATION
VITAL SIGNS: Pulse: 168/min. Respiratory rate: 38/min and labored. Temperature: 104.4 °F.
HEENT: Increased nasal discharge. Trachea midline. TMs clear. Pharynx not examined.
NECK: Supple. No jugular venous distention.
CHEST: Heart: Sinus rhythm with tachycardia. No murmurs. Lungs: There is inspiratory wheezing and respiratory retraction bilaterally. Tachypnea is present. There are bilateral rhonchi. No area of consolidation.
ABDOMEN: Soft and flat. No organomegaly.
EXTREMITIES: No venous distention.
NEUROLOGIC: No neurologic deficits. Moves all extremities well.

IMPRESSION
Croup. Rule out epiglottitis.

PLAN
NPO. Lateral neck film to rule out subglottic edema. Thirty percent oxygen mist tent. Racemic epinephrine 0.125 mL in 2.5 mL normal saline. Tylenol p.r.n. for fever. Intubation precautions until radiographic evidence of subglottic edema is excluded.

Let’s briefly review your steps to see how you did. You should have located the main term Croup in the Index to Diseases for a tentative code of 464.4. You then determined the highest level of specificity for this condition in the Tabular List and correctly assigned a final code of 464.4 Croup. Easy, wasn’t it? We’ll just keep moving forward with the next group of codes, and you’ll soon be breathing easily because you will have completed your basic review of the respiratory system codes in the Tabular List.

Other Diseases of the Upper Respiratory Tract (470-478)

Diseases of the upper respiratory tract include diseases of the nose, throat, sinuses, tonsils and adenoids. You may recall seeing sinusitis, pharyngitis and laryngitis in the previous section. Remember that the codes in that section cover acute conditions. You will use this section of the Tabular List for conditions that are not stated as acute, and some are chronic conditions. As always, using the Index to Diseases coding pathway will point you in the right direction for identifying the accurate codes. And you will encounter INCLUDES and EXCLUDES in this section of the Tabular List, as well, that will assist you in identifying the correct ICD-9-CM codes.
Pneumonia and Influenza (480-488)

Pneumonia is an inflammation of the lungs with consolidation, or the process of the lungs becoming firm as the air spaces are filled with exudate. Pneumonia can be classified as viral, bacterial, or due to other specified organisms. Bacterial pneumonia is treated with antibiotics. Antibiotics will not be effective for viral pneumonia, however. Determining a viral or bacterial cause for the pneumonia may be difficult, in which case antibiotics will be prescribed to treat the condition in case it is bacterial.

Pneumonia comes in many forms. We will be discussing three types of pneumonia that seem to cause confusion in coding. These types are lobular, lobar and lobe pneumonia. Each type, although it seems to be very similar to the others, has a different ICD-9-CM code.

Lobular pneumonia, code 485, is primarily known as bronchopneumonia. This condition is an inflammation of the lungs that usually begins in the terminal bronchioles. The lungs become clogged with mucopurulent exudate that forms consolidated patches in adjacent lobules (small lobes). You can see the dark patches in Figure 26-2.

Lobar pneumonia, code 481 and lobe pneumonia, code 486, look the same when they are reviewed on an x-ray. Each condition is an inflammation of one or more lobes of the lung, together with consolidation. The right lung has three lobes (superior, middle and inferior). The left lung has two lobes (upper and middle). Lobar pneumonia, code 481, is an acute febrile disease produced by Streptococcus pneumoniae. This condition is verified by a culture. If the physician notes that the x-ray reveals right, lower-lobe pneumonia, you will code to 486 because the presence or absence of streptococcal bacterium is not known. You would code 481 only if “streptococcal pneumoniae” is documented, or if the physician specifically notes “lobar pneumonia” in the dictation.

All right; now that you’ve been introduced to the differences among lobular, lobar and lobe pneumonias, it’s time to demonstrate your coding skills on the following problem.
SUBJECTIVE
A 47-year-old male admitted to the ED with complaints of fever, chills, and a painful cough that is producing yellow mucus.

OBJECTIVE
Comprehensive examination performed. Respiratory examination reveals crackles. Anterior, posterior and lateral chest x-rays ordered.

ASSESSMENT
Results of x-rays confirm right lower lobe pneumonia.

PLAN
Patient admitted for further work-up.

The patient has pneumonia, which is located in the right lower lobe. “Lobular” is not documented. “Lobar” is not documented. And a culture was not done to check for the presence of streptococcal bacterium. So you simply have the main term Pneumonia. This main term in the Index to Diseases provides the tentative code of 486. After you have determined the highest level of specificity in the Tabular List, you should assign 486 Pneumonia, organism unspecified as the accurate code.

The other main code group to know more about in this section is 487 Influenza. Influenza is an acute viral infection that involves the respiratory tract. Influenza is marked by inflammation of the nasal mucosa, the pharynx and the conjunctiva. The condition of influenza can be documented “With pneumonia,” “With other respiratory manifestations” or “With other manifestations.” You will code influenza with any form of pneumonia as 487.0. You will code influenza not otherwise specified (NOS) or with laryngitis, pharyngitis or a respiratory infection (upper) (acute) as 487.1. You will code influenza with involvement of the gastrointestinal tract or encephalopathy due to influenza as 487.8. Finally, code category 488 is used when influenza is due to certain identified influenza viruses.

Chronic Obstructive Pulmonary Disease and Allied Conditions (490-496)

Chronic obstructive pulmonary disease, or COPD, is actually a group of diseases characterized by ongoing obstruction of the airway. Three common forms of COPD are acute bronchitis with COPD, chronic bronchitis and emphysema. Acute bronchitis is a sudden inflammation of the trachea and is typically associated with a viral URI. When documentation indicates acute bronchitis with COPD, code 491.22 Obstructive chronic bronchitis, With acute bronchitis is assigned.

It is not necessary to code 466.0 as the acute bronchitis is included in the code description for 491.22. Chronic bronchitis is essentially a cough that lasts for at least three months out of a consecutive two years. In the majority of cases, smoking is the cause of this condition. Other causes include toxic fumes, air pollution and respiratory infections. Emphysema is a condition of the lung characterized by an abnormal increase in the size of air spaces distal to the terminal bronchioles, or destruction of their alveolar walls. This disease affects cigarette smokers almost exclusively. Symptoms of chronic bronchitis often, but not always, coexist with emphysema.
Let's code COPD with acute exacerbation. Using the coding pathway of *Disease, pulmonary*, you are directed to see also Disease, lung. The new coding pathway, *Disease, lung, obstructive (chronic), with, acute, exacerbation* offers the tentative code of **491.21**. Now, go to the *Tabular List* to determine the highest level of specificity. You can comfortably select **491.21 Obstructive chronic bronchitis, With (acute) exacerbation** as the correct code.

Some of the allied conditions (490-496) included in this section are *asthma*, bronchiectasis, extrinsic allergic alveolitis and chronic airway obstruction, not elsewhere classified. Most of these conditions are relatively straightforward to code, but asthma requires a closer look.

---

**Asthma** is a condition marked by recurrent attacks of dyspnea with wheezing due to spasmodic contractions of the bronchi. The *Tabular List* indicates that code 493 **EXCLUDES** wheezing, NOS (786.07). Wheezing is a symptom of asthma. So if wheezing is documented without the final diagnosis of asthma, you will review the code description for 786.07 and assign it. Category 493 also contains a fifth-digit subclassification box.

Review the contents of this box below before you continue.

<table>
<thead>
<tr>
<th>The following fifth-digit subclassification is for use with codes 493.0-493.2, 493.9:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 unspecified</td>
</tr>
<tr>
<td>1 with status asthmaticus</td>
</tr>
<tr>
<td>2 with (acute) exacerbation</td>
</tr>
</tbody>
</table>

A particularly severe episode of asthma that does not respond to therapeutic measures is termed **status asthmaticus**. The physician will document “status asthmaticus” if you are to use 1 as the fifth-digit subclassification. Likewise, “with exacerbation” or “with acute exacerbation” will be documented if you are to use 2 as the fifth-digit subclassification. If neither term is documented, you will use 0 as the fifth-digit subclassification for “unspecified.” In sequencing the codes, if status asthmaticus were documented with COPD of any type or with acute bronchitis, you would sequence the status asthmaticus first.
Okay, now that we’ve reviewed the basic information, you’re ready to see how quickly and accurately you can code the diagnoses based on the following transcribed notes:

**SUBJECTIVE**
A 12-year-old male presents with a cough for several days. He claims albuterol is not helping the cough. He denies any real wheezing with this current illness. His asthma symptoms have been under control this winter. He has not had a fever with this coughing episode.

**OBJECTIVE**
He is alert and pleasant. HEENT is unremarkable. He has a very slight inspiratory crackle and end-expiratory wheeze in his larger airways. Inspiratory breath sounds are clear. No signs of respiratory distress. Heart without murmur.

**ASSESSMENT**
Asthmatic bronchitis.

**PLAN**
Reviewed his asthma regimen and refilled his Advair Diskus. He continues on Singulair daily as well as Claritin-D. Recommend he use the albuterol 1-2 inhalations every 4-6 hours for the next couple of days until cough subsides. Also put him on Zithromax suspension with a double dose on the 1st day. He is to return if symptoms continue. This young man has a very good grasp on his asthma, and he is using a peak flow meter appropriately. Peak flows have been about 100 mL lower than normal.

This office visit requires one code for accurate coding. To code the primary diagnosis, locate the main term *Bronchitis* in the *Index to Diseases*. Now, locate the subterm *asthmatic* in the *Index to Diseases* and locate the tentative code 493.90. Note that status asthmaticus or exacerbation is not documented in the notes, so the fifth digit of 0 is used for “unspecified.” The notes in the *Tabular List* for code 493.9 include asthmatic bronchitis. You will record code 493.90 Asthma, unspecified for this office visit diagnosis.

**Pneumoconioses and Other Lung Diseases due to External Agents (500-508)**

*Pneumoconiosis* is an inflammation that commonly leads to fibrosis of the lungs; this disease is caused by the inhalation of dust in various occupations. Pneumoconiosis is characterized by pain in the chest, a cough with little or no expectoration, dyspnea, reduced thoracic excursion, sometimes cyanosis and fatigue after slight exertion. The three types of pneumoconiosis you will most likely encounter as a healthcare document specialist are coal workers’ pneumoconiosis, asbestosis and silicosis.

*Coal workers’ pneumoconiosis*, formerly known as “black lung” disease, used to be a deadly killer among miners. With increased health standards in the workplace, coal workers’ lung disease has been greatly reduced, although not eliminated. Sometimes called *anthracosis*, this condition essentially refers to lungs that have become filled with coal dust. Prolonged inhalation of dust that is rich in carbon particles and other earth minerals causes the disease. There is no effective treatment for this disease, and it usually runs a slow but steady course toward lung failure.

*Asbestosis* is the name given to the lung disease that results from exposure to asbestos. When asbestos fibers are inhaled, the shorter and smaller ones have a chance of passing the mucous membranes and reaching the lungs. Once the fibers enter the alveoli, they are seized by macrophages, and the process results in extensive pulmonary fibrosis.
Silicosis is the most widespread and oldest of all known occupational diseases. This environmentally induced lung disease is caused by the inhalation of tiny silica crystals found in the dust that is generated during sand blasting, mining and stone cutting. Silicosis is characterized by fibronodular lesions in the lung tissue.

Respiratory conditions caused by fumes, vapors and aspiration of various other substances are examples of other lung diseases and conditions referred to in this section of the Tabular List. For the most part, these are straightforward diagnostic codes, but if you have questions, be sure to call your instructor!

**Other Diseases of the Respiratory System (510-519)**

This final section of codes in the “Respiratory System” chapter contains the diseases and conditions that pertain to the respiratory system that do not fit into any other section. These diseases and conditions are empyema, pleurisy, pneumothorax, abscesses and other diseases of the lung. Be sure to review the inclusions, exclusions and additional notes throughout this section to assist you as you apply these codes.

Code 510, **Empyema** is pus found within the pleural space. The Tabular List instructs you to use an “additional code to identify infectious organism (041.0 - 041.9),” and that this category EXCLUDES abscess of the lung. Empyema may be described with or without mention of a fistula. A fistula in this section is the passage of the purulent infection from the respiratory cavity to another structure.

Pleurisy, code 511, is an inflammation of the pleura serous membrane of the lungs and the lining of the thoracic cavity. Often, fluid accumulates at the site of this inflammation, which results in what is known as pleural effusion. Sometimes, the pleural effusion is an integral part of the underlying disease. When that is the case, you assign a code only for the underlying disease. Congestive heart failure (CHF), for example, would not exist without some degree of pleural effusion. In that case, you would code only the CHF.

Pneumothorax is the presence of air or gas in the pleural cavity, which results in a collapsed lung. Let’s look at the subcategories for pneumothorax and air leak. 512.0 **Spontaneous tension pneumothorax** is a collapsed lung caused by air leaking from the lung into the lining. 512.1 **Iatrogenic pneumothorax** occurs when air is trapped in the lining of the lung following surgery, which in turn causes the lung to collapse. 512.2 codes to postoperative leaks. Finally, codes found in the 512.8 range cover acute, chronic, or conditions EXCLUDES congenital and traumatic pneumothorax and current tuberculous pneumothorax.

Atelectasis is a condition that may also result in the collapse of a lung. This condition should not be confused with pneumothorax. The cause of the collapsed lung with pneumothorax is the presence of gas or air, while the cause of the collapsed lung with atelectasis is the reduction or absence of air in part or all of the lung. Atelectasis is coded using 518.0.

It’s time for a Practice Exercise to see how well you understand the information in this current section. Then you’ll be ready to wrap up the discussion of Chapter 8 and move forward to Chapter 9 of the Tabular List.
Step 4: Practice Exercise 26-1

Determine the correct ICD-9-CM code(s) for the following conditions.

1. **Acute pneumococcal bronchitis**  
   ICD-9-CM code:

2. **Chronic maxillary sinusitis**  
   ICD-9-CM code:

3. **Legionnaires disease**  
   ICD-9-CM code:

4. **Chronic asthmatic bronchitis**  
   ICD-9-CM code:

5. **Adult respiratory distress syndrome**  
   ICD-9-CM code:

6. **ICD-9-CM Coding Challenge**

   **PREOPERATIVE DIAGNOSIS**
   Acute respiratory failure.

   **POSTOPERATIVE DIAGNOSIS**
   Same.

   **PRIMARY PROCEDURE**
   TRACHEOSTOMY.

   **PROCEDURE**
   Following informed consent of the patient's family, the patient was brought to the operating room and placed supine on the table. After adequate induction of general anesthesia and application of appropriate monitoring devices, the patient was prepped and draped for the procedure.

   The neck was marked and injected with 5 mL of 1% Xylocaine and epinephrine. A scalpel was used to create a horizontal incision through the skin. Cautery was used to control bleeding, and the muscles were split down to the level of the thyroid isthmus. Blunt dissection was used to dissect between the thyroid isthmus, and it was divided.

   The cricoid cartilage was identified, and the cricoid hook was placed. The inner space between the 2nd and 3rd thyroid cartilage was then incised, and scissors were then used to enlarge the incision. A #8 Shiley tracheostomy tube was placed into the trachea. The cuff was then inflated, and the incision was sutured. The patient tolerated the procedure well and was transferred back to the ICU.

   **ICD-9-CM code:**
Step 5: Review Practice Exercise 26-1

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 6: Diseases of the Digestive System (520-579)

The digestive system consists of the organs associated with the ingestion, digestion and absorption of food. You will progress through this chapter, Chapter 9, of the Tabular List just as food moves through your body. We begin our discussion at the oral cavity, and then we move down the esophagus and into the stomach. We discuss diseases of the stomach and duodenum, which is the first portion of the small intestine. We then review appendicitis and hernias before we move on to the large intestine. We end our discussion of coding in this chapter with other diseases of the digestive system.

Chapter 9 includes a number of sections, and we will move at a steady pace from one section to the next. You can stop at any point and review what you have learned before you move on to the next section. In other words, pace yourself so that you feel comfortable with what you’re learning—don’t go so fast that you miss important details, but don’t go so slowly that you lose momentum and have to go back and review material more often than necessary.

Diseases of Oral Cavity, Salivary Glands, and Jaws (520-529)

The oral cavity is the cavity of the mouth and its associated structures, including the cheek, palate, oral mucosa, glands whose ducts open into the cavity, teeth and tongue. In looking through the Tabular List for this section, you will find the diagnosis codes to be straightforward. You also will find some EXCLUDES in this section. As always, be sure to follow the directions, and you will find the accurate code.

![Dental Anatomy Overview](image-url)
Teeth are the hard, calcified structures set in the alveolar processes of the mandible, the lower jaw and the maxilla, the upper jaw. During the body’s development, disorders associated with the teeth may arise, such as an absence of teeth, a mottling, or spotting with patches of color, of the enamel and premature eruption or appearance of teeth. Diseases of the teeth include dental caries, abscesses and gingivitis. Abnormal jaw size, dental arch, or position of fully erupted teeth and temporomandibular joint disorder are just a few of the anomalies you will find in these code categories.

Dental caries, or cavities, represent one of the most common diseases. They are bacterial in nature. Dental caries are a multifactorial disease that involves oral bacteria that have eroded the surface enamel of the tooth. The defect spreads down into the dentin, which becomes decalcified and disintegrates, so that the bacteria spreads deep into the tooth and invades the pulp chamber. Pulpitis, inflammation of the root canal, affects the nerves and blood vessels inside the tooth, causing pain. Superficial caries can be treated; but if the infection spreads to the root canal, abscesses and bone infection of the jaw can develop, requiring removal of the tooth. To code this condition, locate the main term Caries in the Index to Diseases, followed by the subterm dental. You will find the tentative code of 521.00. Checking the Tabular List to determine the highest level of specificity, you will find that the correct code for this condition without further details specified is 521.00 Dental caries, unspecified.

Did you know that periodontal disease accounts for more tooth loss than dental caries and all other dental diseases combined? Periodontal disease occurs when bacteria around the tooth cause plaque to form that then calcifies into tartar. This process can cause inflammation, swollen gums, and loosening and even loss of teeth. Poor oral hygiene seems to be the main cause of periodontal disease.

The temporomandibular joint (TMJ) connects the lower jaw to the skull; this joint is located just in front of the ears. The term TMJ literally refers to the joint itself, but it also is often used to describe disorders of the joint. TMJ disorder can be caused by clenching or grinding one’s teeth, poor posture or the lack of relaxation or sleep. There are many symptoms related to this condition, including popping sounds, inability to fully open the jaw, jaw pain, headache, earache and toothache.

Diseases of Esophagus, Stomach, and Duodenum (530-539)

The esophagus is the portion of the digestive system that extends from the pharynx to the stomach. The function of the esophagus is to efficiently transport food from the mouth to the stomach. When diseases of the esophagus occur, this transportation may be painful, prolonged or nonexistent. Esophageal reflux occurs when there is a backflow of gastric acids from the stomach to the esophagus, and possibly to the pharynx.
Operative Report

PREOPERATIVE DIAGNOSIS
Gastroesophageal reflux. Rule out ulcers.

POSTOPERATIVE DIAGNOSIS
Gastroesophageal reflux.

PRIMARY PROCEDURE
ENDOSCOPY.

BRIEF HISTORY
A 52-year-old male presenting with difficulty swallowing and a burning sensation in epigastric area.

PROCEDURE
After patient was adequately sedated by anesthesiologist, a flexible esophagoscope is passed from the mouth into the esophagus. Esophageal mucosa appears to be normal. Inflammation consistent with gastroesophageal reflux. No signs of ulcerations.

To code this operative report, you will need to ask yourself, “What’s the problem?” The problem, Reflux, is the main term you will locate in the Index to Diseases. Using gastroesophageal as the subterm provides the tentative code of 530.81. Now turn to the Tabular List to determine the highest level of specificity for this code. In the Tabular List, note that code 530.81 Esophageal reflux EXCLUDES reflux esophagitis, and indicates that code 530.11 would be more appropriate. Reflux esophagitis is an inflammation of the lower esophagus due to regurgitated gastric acid from a malfunctioning lower esophageal sphincter. The operating report does not note any malfunction, so you can be comfortable assigning code 530.81 for the condition, which is confirmed by the documentation of the procedure.
An ulcer is a lesion on the mucous membrane that leads to the destruction of the normal tissue lining. These ulcers are caused by the action of gastric acid and pepsin on the gastric mucosa, which decreases its resistance to ulcer. This section contains four categories for ulcers: gastric, duodenal, peptic and gastrojejunal. Gastric ulcers are those of the stomach. Duodenal and gastrojejunal ulcers are in the small intestine. The duodenum is the first part of the small intestine. Gastrojejunal refers to the stomach and the jejunum to the portion of the small intestine located between the duodenum and ileum. While these categories are locations of ulcers, the fourth category, peptic, is a type of ulcer. Peptic ulcers can be found in the esophagus, stomach or duodenum. When the site of the peptic ulcer is not specified, you will use a code in the category 533. Also note in the Tabular List for these codes that you are to use an E code for gastric, duodenal and peptic ulcers if the ulcer is drug-induced, to identify the drug.

The fourth-digit subcategory further identifies an ulcer. Ulcers can be classified as acute or chronic. Acute ulcers are associated with shallow erosion and minimal inflammation. They are of short duration and resolve quickly when the cause is identified and removed. Chronic ulcers are associated with a long duration and erode through the muscular wall with the formation of fibrous tissue. It is continuously present for many months or intermittently present throughout the person's lifetime. Complications caused by an ulcer are hemorrhages, perforations and obstructions. To code hemorrhages (or bleeding ulcers) and perforations (holes in the tissue lining), these conditions must be noted in the documentation. These complications are confirmed by the physician's direct observation using an endoscope.

The size or location of the mucosal ulceration may cause an obstruction of the digestive system. Code categories 531 through 534 require similar fifth-digit subclassifications, depending on whether or not an obstruction is documented.

Keep in mind, the physician must document the obstruction; otherwise, you must apply the fifth digit 0, which indicates “without mention of obstruction.”

**Appendicitis (540-543)**

The appendix is described as a worm-like appendage that branches off the large intestine at the cecum, which is the first part of the colon. You know from your terminology lessons that the “-itis” suffix means “inflammation of.” So appendicitis is inflammation of the appendix. Appendicitis begins when the opening from the appendix to the cecum becomes blocked. Bacteria, usually found within the appendix, begin to invade the appendix wall, which causes an inflammation. The infection and inflammation can cause the appendix to rupture. The infection can spread throughout the peritoneum, or the lining of the abdominal cavity. Alternatively, this infection can be confined to the area surrounding the appendix, forming a peritoneal abscess.
To code appendicitis, you will go to the *Index to Diseases* and look for the main term *Appendicitis*. Using this tentative code of 541, go to the *Tabular List* to determine whether this code represents the highest level of specificity for the diagnosis. Based on the information there, you confirm that code 541 *Appendicitis, unqualified* is correct.

**Hernia of Abdominal Cavity (550-553)**

A *hernia* is the protrusion of a part or structure through the tissues that normally contain it. This section concentrates on hernias located in the abdominal cavity. Under the heading for this section in the *Tabular List*, you will note that it **includes** hernias that are acquired or congenital, except for diaphragmatic or hiatal hernias. Note in particular that code category 550 includes a fifth-digit subclassification box to identify whether the hernia is “unilateral or unspecified (not specified as recurrent),” “unilateral or unspecified, recurrent,” “bilateral (not specified as recurrent)” or “bilateral, recurrent.” Each of the other hernia codes in this group, however, list the entire five-digit code, with descriptions, for you.

Hernias are classified by:

- the *location* of the hernia, such as the body area, unilateral or bilateral.
- *occurrence*, such as recurrent or not specified as recurrent.
- documenting *with or without obstruction*; “with obstruction” can be specified as incarcerated, irreducible, strangulated or causing obstruction.
- documenting *with or without gangrene*, which is the death of tissue due to the obstruction, loss or diminution of blood supply.
Now read through the following note for an office visit by a patient with a hernia, and then determine how to code the condition.

SUBJECTIVE
A 42-year-old male complains of a lump in the groin, which is tender to the touch. He states the pain increases when he is lifting.

OBJECTIVE
Abdominal exam confirms inguinal hernia on the right side. Attempt to push the protrusion back into the abdominal cavity was unsuccessful.

ASSESSMENT
Unilateral inguinal hernia.

PLAN
Outpatient surgery is required for repositioning.

To code this visit, locate the main term Hernia in the Index to Diseases. The type of hernia is inguinal, so that will be the subterm. Neither gangrene nor an obstruction is noted in the dictation. Also note that the Index to Diseases states that a fifth digit is required with code 550.9. Once again, turn to the Tabular List to determine the highest level of specificity. Based on the fifth-digit sub-classifications included here, you will select 550.90 as the tentative code for this diagnosis. The hernia was specified as unilateral but not specified as recurrent. So the final code for this condition is 550.90 Inguinal hernia, without mention of obstruction or gangrene, unilateral or unspecified (not specified as recurrent).

Noninfectious Enteritis and Colitis (555-558)
This small section includes codes for inflammation and insufficiency of the intestines and inflammation of the colon. Diseases of this type include Crohn's disease, ileitis, ulcerative enterocolitis, bowel infarction and gastroenteritis.

Other Diseases of Intestines and Peritoneum (560-569)
This section contains codes for all the remaining diseases and conditions of the intestine and peritoneum that are not classified within the previous code groups. Codes 560 through 569 cover conditions such as diverticulosis, constipation, peritonitis and anal polyp.

You will note that code category 560 lists many EXCLUDES. In other words, you should not use this category “intestinal obstructions without mention of a hernia” if a specific cause or reason has been documented.

A diverticulum is a saccular dilatation or outpouching through a weakened area in the intestinal wall. Diverticula may occur at any point within the gastrointestinal tract but are most commonly found in the sigmoid colon. Diverticulosis is a condition in which the person has multiple diverticula. Diverticulitis is an inflammation of the diverticula. In this section, you will find both of these conditions associated with both the small intestine and the colon.

Peritonitis is an inflammation of the peritoneal cavity. Turn to the Tabular List to review the EXCLUDES for code 567. You will see that you do not code from this category peritonitis with or following abortion, appendicitis or an ectopic or molar pregnancy. If you have a diagnosis for which you use code 567.0 Peritonitis in infectious diseases classified elsewhere, you must first code the underlying disease. Also note that code 567.0 EXCLUDES gonococcal, syphilitic and tuberculous peritonitis.
Now it's your turn to practice coding again. Read through the following procedure report, review what you’ve learned so far in this step, and see how accurate you are at identifying the correct code or codes for the documented diagnosis.

**PREOPERATIVE DIAGNOSIS**  
Rectal bleeding with history of polyps.

**POSTOPERATIVE DIAGNOSIS**  
Rectal bleeding due to rectal polyp and diverticulosis.

**PRIMARY PROCEDURE**  
TOTAL COLONOSCOPY WITH SNARE POLYPECTOMY IN RECTUM.

**DESCRIPTION OF PROCEDURE**  
This 74-year-old female was taken to the outpatient area, placed in the left lateral decubitus position, and given 1 mg midazolam hydrochloride and 60 mcg fentanyl, intravenously titrated by anesthesiologist, with good sedation achieved. The Olympus video colonoscope was easily introduced over the cecum and then slowly withdrawn in a spiraling fashion, visualizing mucosa circumferentially. It was retroflexed in the rectum. The polyp was biopsied with cold biopsy forceps and then removed in its entirety with the snare, with cautery current. Good hemostasis was noted at the base. The polyp was sent for pathologic study. The scope was withdrawn.

To code the diagnosis for this procedure, refer to the postoperative diagnosis. The patient has rectal bleeding, which is due to the rectal polyp. Because the bleeding is caused by the polyp, you code only to the rectal polyp. The coexisting diagnosis is diverticulosis. The procedure indicates the scope was in the **cecum**, which is the first part of the colon, so you code diverticulosis of the colon. You would not have that information if you hadn’t read through the report. So remember that as you review the physician’s notes to determine correct codes, it is important not only to look at the postoperative diagnosis, but also to read through the procedure. You must thoroughly review all the information available to ensure that your coding is accurate.

Okay; let’s walk through the details of this coding example. You identify the primary coding pathway as **Polyp, rectum** which provides a tentative code of **569.0**. Then, you refer to the **Tabular List** to determine the highest level of specificity; you will find code **569.0 Anal and rectal polyp** is the right one.

Next you will follow the pathway of **Diverticulosis, colon** for the coexisting diagnosis. Under **Diverticula, diverticulosis, diverticulum** you will find **colon (acquired)** with a tentative code of **562.10**. A check in the **Tabular List** confirms that this is the correct code: **562.10 Diverticulosis of colon (without mention of hemorrhage)**.

Remember: In this scenario, the bleeding is due to the rectal polyp, not the diverticulosis, so you do not associate the bleeding with the coexisting condition.

You’ve come to the final section of diseases of the digestive system. And your coding skills are starting to show!
Other Diseases of Digestive System (570-579)

Diseases in this subchapter are those of the liver, the gallbladder and biliary ducts and the pancreas. The conditions gastrointestinal hemorrhage and intestinal malabsorption are also included in this code group.

Code category 571 includes chronic liver disease and cirrhosis, which is end-stage liver disease. Liver diseases might be the result of alcohol use, or they might not be alcohol related. Category 572 codes liver abscess and sequelae of, or “condition following,” chronic liver disease. Other disorders of the liver include hepatitis, or inflammation of the liver, which is noninfectious. Note that you will code viral hepatitis from Chapter 1 and code group 070 of the Tabular List.

Cholelithiasis is the presence or formation of gallstones. Gallstones are composed almost entirely of excessive blood pigment, with calcium deposits in some. This blood pigment is released by the destruction of red blood cells. This code category, 574, requires use of a fifth-digit subclassification to indicate whether or not an obstruction is documented. The fifth digit will be 0 if no obstruction is documented, and 1 with a documented obstruction, as the following box shows:

The following fifth-digit subclassification is for use with category 574:

| 0 without mention of obstruction |
| 1 with obstruction |

Gallstones may be lodged in the neck of the gallbladder or the cystic duct, which may lead to an inflammation of the gallbladder. When this happens, the inflammation is documented, as with cholecystitis. Since these conditions usually occur together, having a cause-and-effect relationship, one code group, 574, covers both conditions. Be aware, though, that you will use a specific code category, 574.0, if the cholecystitis is documented as acute. Also, if only inflammation is documented, do not assume that the inflammation was caused by cholelithiasis. Finally, you will use a separate code group, 575, for a diagnosis of cholecystitis alone.
The biliary tract, which you will also code to this section, consists of the organs, ducts and other structures that participate in the secretion, storage and delivery of bile into the duodenum. Inflammation, obstruction, perforation and abnormal passages are disorders associated with the bile duct. Cholangitis is the term used to indicate inflammation of the biliary ducts.

Let's code a diagnosis from this section of the “Digestive System” chapter. A patient’s diagnosis is acute cholecystitis with cholelithiasis. What code would you use to indicate this condition? Would you have two codes for the two conditions? What main term would you use for your coding pathway? The answers to these questions will direct you to the accurate code.

First, you will need to determine the meaning of the diagnosis. Cholecystitis is an inflammation of the gallbladder. Cholelithiasis is the presence or formation of gallstones. Remember, these diagnoses indicate a cause-and-effect relationship that requires one code. For the coding pathway, begin with the inflammation, using Cholecystitis as the main term. When you look up this term in the Index to Diseases, you will find “Cholecystitis 575.10,” then “with,” then “calculus, stones in,” and then “gallbladder — see Cholelithiasis.” So you need to use the cause, or Cholelithiasis, as the main term. That approach takes you to “Cholelithiasis (impacted) (multiple) 574.2,” then “with,” and “cholecystitis 574.” The further documentation of “acute” provides the tentative code of 574.0. Now turn to the Tabular List to determine the highest level of specificity. Note that this code has a fifth-digit subclassification to indicate whether an obstruction is mentioned. It is not, so 574.00 Calculus of gallbladder with acute cholecystitis, without mention of obstruction is the code you will assign.

You’ve done well with Diseases of the Digestive System. You’re ready to tackle Diseases of the Genitourinary System after completing a Practice Exercise.

**Step 7: Practice Exercise 26-2**

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Ulcerative stomatitis  
   ICD-9-CM code:

2. Acute prepyloric ulcer with hemorrhage  
   ICD-9-CM code:

3. Chronic peptic duodenal ulcer, with obstruction  
   ICD-9-CM code:

4. Appendicitis with peritonitis  
   ICD-9-CM code:

5. Strangulated hiatal hernia  
   ICD-9-CM code:

6. Impacted colon  
   ICD-9-CM code:
7. Dumping syndrome postgastric surgery  
   ICD-9-CM code:

8. Cirrhosis of the liver  
   ICD-9-CM code:

9. ICD-9-CM Coding Challenge

   PREOPERATIVE DIAGNOSIS  
   Epigastric abdominal pain.

   POSTOPERATIVE DIAGNOSIS  
   Gastritis, gastric ulceration and duodenal ulceration.

   PRIMARY PROCEDURE  
   ESOPHAGOGASTRODUODENOSCOPY WITH BIOPSY.

   DESCRIPTION OF PROCEDURE  
   Following consent, the patient was brought to the endoscopy suite and placed in the sitting position, where he received Hurricaine spray to his oropharynx. The patient was placed in the left lateral decubitus position, where a bite-block was placed between his incisors. The Olympus video gastroscope was placed and advanced under visualization down through the oropharynx, the proximal then distal esophagus, through the gastroesophageal junction, and into the gastric body and duodenum via the pylorus. The endoscope was withdrawn back into the gastric antrum, and the antral mucosa was biopsied. The endoscope was withdrawn back into the gastric body, retroflexed with visualization of the gastric fundus. The endoscope was then straightened and withdrawn completely under suction. The patient tolerated this procedure very well.

   ICD-9-CM code:

   ICD-9-CM code:

   ICD-9-CM code:

**Step 8: Review Practice Exercise 26-2**

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

**Step 9: Diseases of the Genitourinary System (580-629)**

Chapter 10 of the *Tabular List* includes diseases of the genitourinary system. The term *genitourinary* pertains to the genital and urinary organs. The genital and urinary systems are usually considered together because anomalies of the genital and urinary tracts are often interrelated. The *urinary system* includes the kidneys, ureters, bladder and urethra. We also will discuss the *genital system*, which includes the male and female genital organs and the breasts.
Chapter 10 of the Tabular List includes diseases of the genitourinary system. The term genitourinary pertains to the genital and urinary organs. The genital and urinary systems are usually considered together because anomalies of the genital and urinary tracts are often interrelated. The urinary system includes the kidneys, ureters, bladder, and urethra. We also will discuss the genital system, which includes the male and female genital organs and the breasts.

If you have questions while studying this section, refer to the Anatomy and Physiology Book to help you understand the diseases and check the subterms more closely.

Figure 26-8: Urinary system

---

**Nephritis, Nephrotic Syndrome, and Nephrosis (580-589)**

This section deals with diseases of the kidneys. Your terminology lessons will be helpful in your understanding that the word kidney is renal in Latin and nephros in Greek. A number of other terms will help you code conditions related to the kidneys. Note that the section **EXCLUDES** hypertensive chronic kidney disease. As we discussed in reference to Chapter 7 of the Tabular List, the ICD-9-CM classification system presumes a cause-and-effect relationship between hypertension and renal failure, so you should code these combined diagnoses to code group 403, “Hypertensive chronic kidney disease” or code group 404 “Hypertensive heart and chronic kidney disease.” Nephritis is an inflammation of the kidneys. Nephrosis, or nephrotic syndrome, is a general name for a group of diseases that damage the kidneys. Symptoms of these diseases include protein in the urine, low blood-protein levels, high cholesterol levels and swelling.

The kidneys are two bean-shaped organs located in the lumbar region. They filter the blood, remove ion wastes and toxins and eliminate liquid waste from the body in the form of urine.

Glomuli are tufts, or clusters, of capillary loops at the beginning of each nephric tubule in the kidney. Glomerulonephritis is nephritis accompanied by inflammation of the capillary loops in the glomeruli of the kidneys. Glomerulonephritis occurs in acute, subacute and chronic forms, and it might be secondary to streptococcal infections. Acute glomerulonephritis is typically preceded by tonsillitis or febrile pharyngitis and is characterized by proteinuria (protein in the urine), edema, hematuria (blood in the urine), renal failure and hypertension. A slowly progressive, or chronic glomerulonephritis, generally leads to irreversible renal failure. Renal failure is the impairment of renal function, either acute or chronic, with retention of urea, creatinine and other waste products.
Other Diseases of Urinary System (590-599)

Some of the other categories of urinary system diseases, whose codes are contained in this section, include infection, distention, calculus, inflammation and malfunctions. Infections of the kidney, bladder and urinary tract are bacterial infections for which the ICD-9-CM manual directs you to use an additional code to identify the organism that has caused the infection, if that is known. Pyelonephritis is an infection of the kidney. Cystitis is an inflammation of the urinary bladder. A urinary tract infection is referred to as a UTI.

Calculus, or stones, can be found in the kidneys, ureter, bladder, urethra or lower urinary tract. Kidney stones are the most common. Although kidney stones are painful, they usually pass on their own without permanent damage. Medication can be used to decrease the chances of stone formation and to aid in the breakdown of already-formed stones. If the stones are too large to pass naturally, ultrasonic waves can be used to break up the stone. Surgery might also be elected for removal of the stone.

The urethra is the tube that carries the urine from the bladder to the exterior of the body. Inflammation of this urinary organ is known as urethritis. An abscess, or pocket of pus, may form in the tube. A narrowing of the tube is termed a stricture. As you review the details of this section, note that you are to use an additional code if this stricture is associated with urinary incontinence.

Carefully review the following operation transcription before you practice coding the indicated diagnosis. Then we will compare notes to see how you did.

PREOPERATIVE DIAGNOSIS
Left ureteral stone.

POSTOPERATIVE DIAGNOSIS
Same.

PRIMARY PROCEDURE
CYSTOURETHROSCOPY, URETERAL DILATION AND URETHROSCOPY WITH STONE EXTRACTION.

PROCEDURE
After general anesthesia was done, the patient was placed in the dorsal lithotomy position. The genital area was prepped and draped. A cystouretoscopy was done, which was unremarkable. Under direct vision, a 0.035-inch guidewire was inserted into the right ureter, all the way to the renal pelvis. A 4 cm 12 French ureteral balloon dilator was inserted over the guidewire, and the lower ureter was dilated at 16 mL. After the dilation was accomplished, the dilator was removed from the guidewire, and the ureteroscope was inserted into the ureter. The stone could be seen above the ureterovesical junction. It was engaged into a Segre basket, and gradually it was removed. Ureteroscopy was done. There was some redness of the ureteral vault, but it was otherwise unremarkable. The bladder was drained, and the patient was sent to the recovery room.

For outpatient coding, you are to code the postoperative diagnosis, so you are coding for a ureteral stone. Go ahead and determine the coding pathway, the tentative code, and the final code you would assign for this diagnosis before we walk through the process together.

How do you think you did? Let’s compare notes. You’ll use the coding pathway of Stone, ureter. The Index to Diseases provides the tentative code of 592.1. Determine the highest level of specificity in the Tabular List. You can then assign 592.1 Calculus of ureter, which is the accurate code for the diagnosis of left ureteral stone.
Diseases of Male Genital Organs (600-608)

The primary reproductive organ in the male is the testis (testicle). The job of the two testes is to produce sperm for reproduction and to produce the male hormone testosterone. The external organs of the male reproductive system include the penis and the scrotum. The testes are enclosed by the scrotum. The only portions of the male reproductive system that are internal are the accessory glands and the reproductive ducts. The accessory glands include the seminal vesicle, the prostate gland and the bulbourethral gland. These glands make semen, which contains sperm. The reproductive duct system includes the epididymis, the ductus deferens and the urethra. These ducts carry the sperm and semen on their way out of the body.

![Male reproductive system diagram](image)

The prostate gland, one of the accessory glands that contributes to the making of semen, surrounds the neck of the bladder and the urethra. Diseases of the prostate include enlargement, inflammation, calculus and stricture.

Hyperplasia is an increase in the number of cells in a tissue or an organ, excluding tumor formation, whereby the bulk of the part or organ may be increased. The condition of hyperplasia may cause various urinary conditions, in which case you are directed to use an additional code to identify urinary condition. Keep in mind that this increase in cells does not correlate with a neoplasm. If the increase in cells is attributed to malignant or benign neoplasm, you will code from Chapter 2 of the Tabular List, “Neoplasms.”

Prostatitis is an inflammation of the prostate. If the organism causing the infection is identified, you are to use an additional code for that organism. When the inflammation develops suddenly, it is referred to as acute prostatitis. Chronic prostatitis develops gradually and continues for a long period. Prostatocystitis is when the inflammation is of the prostate and of the bladder.

Code category 607, disorders of the penis, excludes phimosis, which is a narrowing of the opening of the prepuce, or foreskin, preventing its being drawn back over the glans penis. Disorders of the glans penis, or the head of the penis, include leukoplakia (white, thickened patches) and balanitis (inflammation of the glans penis). Other specific disorders of the penis are thrombosis, edema and impotence of organic origin.
Now that we’ve introduced you to many of the relevant terms and definitions, and a few coding pointers for this section, let’s try coding an example.

**SUBJECTIVE**
A 25-year-old male is seen in the office complaining of fever, chills, and lower abdominal discomfort. He states it is tender between his genitals and anus. For the past 2 days, he has noted a burning sensation when urinating.

**OBJECTIVE**
Upon physical exam, prostate is warm and tender. The groin lymph nodes appear enlarged. The scrotum is swollen and tender. Urethral discharge is noted. A triple-void urine specimen was taken for urinalysis and culture. Results of urinalysis indicate elevated WBC. The urine culture shows a concentration of bacterial growth.

**ASSESSMENT**
Acute inflammation of the prostate.

**PLAN**
Patient is discharged with a prescription for Bactrim to be taken for 14 days.

Using the coding pathway of *Inflammation, prostate* in the *Index of Diseases*, you are directed to *see also* Prostatitis. The new coding pathway of *Prostatitis, acute* provides the tentative code of 601.0. The *Tabular List* confirms code 601.0 *Acute prostatitis* as the correct code. Do you see the relationship between the patient’s sex and diagnosis? Note that 601.0 is a male diagnosis only.

Know the following terms and related definitions to aid in your understanding of the physician’s dictation for conditions related to the male genital organs. And remember: If an infection for any of the following is indicated, you will use an additional code to identify the organism.

- **Hydrocele**—a collection of fluid found in the spermatic cord or in the space of the tunica vaginalis testis.
- **Orchis**—a Greek term that means “testis.” Orchitis is an inflammation of the testis.
- **Epididymis**—an elongated structure connected to the posterior surface of the testis. The epididymis stores and matures spermatozoa and transports them from testis to ductus deferens (vas deferens). Inflammation of this structure is known as epididymitis.

**Disorders of Breast (610-612)**

This brief section contains codes for disorders of the breast, which include conditions classifiable to both males and females. Abnormal tissue growths that are nonneoplastic in nature (that is, are not neoplasms) are referred to as *benign mammary dysplasias*. These conditions are cysts and fibroids of the breast and dilation of the mammary ducts. These disorders consist of the breast being inflamed or enlarged or a mass in the breast. Other disorders of the breasts exclude those disorders associated with lactation or of the puerperium period. The puerperium period is that period of time that begins immediately following delivery and continues for six weeks.
PREOPERATIVE DIAGNOSIS
Bilateral gynecomastia.

POSTOPERATIVE DIAGNOSIS
Same.

PROCEDURE PERFORMED
BILATERAL SUBCUTANEOUS MASTECTOMY.

PRIMARY PROCEDURE
The patient was brought to the operating room and given 1 mg midazolam hydrochloride in intravenous incremental doses. The area of concern was then infiltrated with 1% Xylocaaine mixed with 0.5% Marcaine. The area was infiltrated extensively. An incision was made beneath the nipple of the right breast, extending down into the skin and subcutaneous tissue. A wide excision was then taken, grasping all of the breast tissue and completely dissecting it free. Hemostasis was achieved with electrocautery and suture ligatures. Dissection was carried up to include the tail of the breast and laterally and inferiorly. Hemostasis was determined to be intact. The breast tissue was removed and sent off as a separate specimen. The wound was then approximated and closed with interrupted 4-0 Vicryl sutures.

I then proceeded to perform the same procedure on the left breast. This wound was then approximated and closed with interrupted 4-0 Vicryl sutures. The patient was awakened and taken to the recovery room in excellent condition.

To code the postoperative diagnosis locate the main term Gynecomastia in the Index to Diseases. The tentative code 611.1 is provided. Turn to the Tabular List to determine the highest level of specificity. 611.1 Hypertrophy of breast is the correct code for the procedure documented.

Inflammatory Disease of Female Pelvic Organs (614-616)

The codes for inflammatory conditions of the female pelvic organs that you will find in this section include inflammation of the ovaries, fallopian tubes, pelvic cellular tissue, peritoneum, uterus, cervix, vagina and vulva. You will note that inflammation of the ovary, fallopian tube, pelvic cellular tissue, peritoneum and uterus are further classified as acute, chronic or unspecified.
To code the postoperative diagnosis locate the main term Gynecomastia in the Index to Diseases. The tentative code 611.1 is provided. Turn to the Tabular List to determine the highest level of specificity. 611.1 Hypertrophy of breast is the correct code for the procedure documented.

Inflammatory Disease of Female Pelvic Organs (614-616)

Figure 16-9: Female Reproductive System

The codes for inflammatory conditions of the female pelvic organs that you will find in this section include inflammation of the ovaries, fallopian tubes, pelvic cellular tissue, peritoneum, uterus, cervix, vagina, and vulva. You will note that inflammation of the ovary, 36 weeks later

Figure 26-10: Female reproductive system

Also, note in the Tabular List that you are directed to use an additional code to identify the organism, if known, responsible for the inflammation. Be aware that these codes EXCLUDES conditions that are associated with pregnancy, abortion, childbirth or the puerperium. Finally, you will probably find that reviewing your terminology will be particularly helpful with this section. For example, salpingo is a combining form for “tube,” meaning the uterine or fallopian tube; oophoron is Latin for “ovary.”
Here's another scenario for you to code—see how quickly and accurately you can determine the correct code, and then compare your results with the summary that follows.

**SUBJECTIVE**
An 18-year-old sexually active female complains of vaginal discharge with odor x 1 month. She has had multiple sex partners in the past 6 months. There has been pain with intercourse and an increase in menstrual cramping.

**OBJECTIVE**

**ASSESSMENT**
Examination and labs confirm pelvic inflammatory disease (PID).

**PLAN**
Recommend antibiotic treatment and follow-up appointment in 2 weeks.

Here's what you should have found in the *ICD-9-CM* manual for the diagnosis of PID, or pelvic inflammatory disease. You’ll determine the coding pathway to be Disease, pelvis, pelvic, inflammatory (female) (PID), with a tentative code of 614.9. Then, go to the *Tabular List* to determine the highest level of specificity, and you confirm that 614.9 Unspecified inflammatory disease of female pelvic organs and tissues is the accurate code.

**Other Disorders of Female Genital Tract (617-629)**
This final section of Chapter 10 of the *Tabular List* contains disorders of the female genital tract, such as endometriosis, genital prolapse, fistula, noninflammatory disorders of the female genital organs, pain, disorders of menstruation, menopausal disorders, infertility and other disorders of the genital organs. You might find this section challenging because of the number of disorders it includes. We discuss the categories in detail so that you can become comfortable with the information. So take as much time as you need and be sure you understand each area before you go ahead to the next section. And, as always, be sure to contact your instructor if you have any unresolved questions.

The endometrium is tissue that lines the uterus. The presence of endometrial tissue in abnormal locations, such as in the pelvic area, outside of the uterus, or on the ovaries, bowel, rectum or bladder, is referred to as endometriosis. This condition can cause pain, irregular bleeding and infertility.
Genital prolapse occurs when pelvic organs bulge into the vagina or cause pelvic pressure with movement. Prolapse is a hernia and requires surgical repair. When the bulge causes pressure, urinary incontinence can occur. The ICD-9-CM manual directs you to use an additional code within code category 618 to identify the urinary incontinence if it is documented. This group of codes EXCLUDES conditions that complicate pregnancy, labor or delivery. Also note that prolapse of the vaginal walls can be classified to the cystocele, urethrocele, rectocele or perineocele. Here's a brief review of what these terms mean:

- **Cystocele**—protrusion of the urinary bladder into the vaginal wall.
- **Urethrocele**—weakness of the tissues in the front wall of the vagina causing the overlying urethra to bulge backward and downward into the vagina.
- **Rectocele**—protrusion into the back of the vaginal wall caused by the rectum pushing against weakened tissues of the vaginal wall (usually associated with a cystocele).
- **Perineocele**—hernia in the perineal region, found between the rectum and the vagina or the rectum and the bladder, or alongside the rectum.

Pain and other symptoms associated with female genital organs may occur during sexual intercourse, menstruation or at unexpected times, such as with stress incontinence. Dyspareunia is pain experienced during sexual intercourse. This pain can occur in the pelvic area during or soon after sexual intercourse. Causes of this condition range from vaginal dryness due to inadequate lubrication to current medications.

Pain relating to menstruation can be classified as “pain between periods,” “pain during periods” or “pain before periods.” Mittelschmerz, or ovulation pain, is one-sided, lower-abdominal pain that occurs at or around the time of ovulation. This is not a harmful condition, but often requires treatment to relieve the cramping pain. Some pain during menstruation is normal. Pain that is severe enough to limit usual activities or that requires medication is termed **dysmenorrhea**. Premenstrual tension syndromes include menstrual migraine, premenstrual dysphoric disorder, premenstrual syndrome (PMS) and premenstrual tension.

Involuntary leakage of urine due to insufficient sphincter control is referred to as stress incontinence or urinary incontinence. The leakage may occur upon sneezing, laughing, coughing, sudden movement or lifting. This incontinence might be sudden and temporary or ongoing and long term. Strengthening the pelvic muscles using Kegel exercises can help manage this condition. Surgery might be required if symptoms continue or worsen.

By now, you’re probably feeling like a pro in terms of your ability to move around the ICD-9-CM manual. Quickly assessing each scenario, determining the best starting place for determining the tentative code, verifying the code, and making any final adjustments for additional digits as needed in the Tabular List. Go ahead and complete the following Practice Exercise to review what you’ve learned in this step before you begin your study of the group of codes that include all the possible complicating conditions related to pregnancy, childbirth and the puerperium.
Step 10: Practice Exercise 26-3

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Diabetic nephrosis with long-term insulin use
   ICD-9-CM code:
   ICD-9-CM code:
   ICD-9-CM code:

2. Carbuncle of the kidney
   ICD-9-CM code:

3. Acute cystitis due to E coli
   ICD-9-CM code:
   ICD-9-CM code:

4. Hard firm prostate
   ICD-9-CM code:

5. Testicular abscess
   ICD-9-CM code:

6. Periodic fibroadenosis of the breast
   ICD-9-CM code:

7. Paravaginal prolapse
   ICD-9-CM code:

8. Amenorrhea
   ICD-9-CM code:
Use the following information to complete the CMS-1500 that follows.

9. ICD-9-CM Coding/Billing Challenge

<table>
<thead>
<tr>
<th>Matthew Grimm, MD</th>
<th>Springtown Clinic</th>
<th>EIN: 86-8000600</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPI: 0304851124</td>
<td>1824 Park Avenue</td>
<td>NPI: 0304455166</td>
</tr>
<tr>
<td>Provider of Blue Cross and Medicaid</td>
<td>Springtown, CO 80000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>970-555-1834</td>
<td></td>
</tr>
<tr>
<td>David Rhodes, MD</td>
<td>Springtown Clinic</td>
<td></td>
</tr>
<tr>
<td>NPI: 0189218600</td>
<td>1824 Park Avenue</td>
<td></td>
</tr>
<tr>
<td>Provider of all private insurance</td>
<td>Springtown, CO 80000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>970-555-1834</td>
<td></td>
</tr>
</tbody>
</table>

**Patient Information**
- **Name**: Samuel Jones
- **Date of Birth**: May 19, 1972
- **Sex**: M
- **Marital Status**: Divorced

**Address**: 3 HWY South, Anytown, CO 80000

**Home Phone**: (970) 555-1313

**Employment Information**
- **Name of Employer**: Green Finger Nursery
- **Occupation**: 

**Insurance Information**
- **Primary Insurance**
  - **Name**: Blue Cross of Iowa
  - **ID#**: 666 00 6663
- **Group#**: VE001
- **Address**: PO Box 1677, Sioux City, IA Z1102

- **Secondary Insurance**
  - **Name**: none
  - **ID#**: 
  - **Group#**: 
  - **Address**: 
  - **State**: 
  - **ZIP**: 

**Primary Insured Name**: self

**Relation to Patient**: self

**Employer**: Green Finger Nursery

I authorize the release of any information including diagnosis and treatment. I authorize my insurance carrier to pay directly to the doctor any benefits otherwise payable to me.

**Signature of patient (or parent of minor child)**: Samuel Jones

**Physician signature**: Matthew Grimm, MD

**Date of Service**: 2/28/XX

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Procedure</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99213 Office visit level 3</td>
<td>$63.00</td>
</tr>
<tr>
<td></td>
<td>81000 Urinalysis</td>
<td>$10.00</td>
</tr>
</tbody>
</table>

**Today's Charge**: $73.00

**Cash/Check**: $0.00

**Balance**: $73.00
Name: Samuel Jones  
DOB: May 19, 1972  
Date of Service: February 28, 20XX

SUBJECTIVE  
This patient complains of dysuria and prostate nodule. Suspect UTI, rule out pyelonephritis and prostatic carcinoma.

OBJECTIVE  
Expanded problem focused exam performed on established patient. Urinalysis: Specific gravity 1.030, pH 7.4. Negative for protein, glucose and ketones. Microscopic: No RBCs, WBCs or casts seen. Urine culture results from outside lab positive for Enterobacter, resistant to ampicillin and cephalothin.

ASSESSMENT  
Urinary tract infection secondary to Enterobacter aerogenes. No evidence of pyelonephritis or prostatic carcinoma from serologic or urine testing.

PLAN  
Oral antibiotics. Patient to return in 1 week.
**Step 11: Review Practice Exercise 26-3**

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 12: Complications of Pregnancy, Childbirth, and the Puerperium (630-679)

Conditions that affect the management of pregnancy, childbirth and the puerperium are classified in categories 630 through 679 in Chapter 11 of the Tabular List. Conditions from other chapters usually are reclassified in this chapter when those conditions either complicate the obstetrical experience or are aggravated by the pregnancy. Any condition that occurs during the pregnancy is considered to be a complication of the pregnancy unless the physician documents otherwise. This chapter contains many fifth-digit subclassification boxes, notes INCLUDES and a few EXCLUDES. The purpose of this abundance of information is to assist you in accurately coding all the possible conditions related to pregnancy, childbirth and the puerperium. Carefully reading the information provided in the Tabular List and understanding how to apply that information are essential in this chapter. Again, we methodically walk you through the information provided in each section. We provide definitions when they are necessary or particularly helpful. We step through examples and provide plenty of practice to assist you in understanding this chapter. So take a deep breath, and let's begin.

ICD-9-CM Guidelines: General Rules for Obstetric Cases

To accurately code Chapter 11 of the Tabular List, you must be familiar with “Section I ICD-9-CM Conventions, General Coding Guidelines and Chapter-Specific Guidelines” of the Coding Guidelines in the front of your ICD-9-CM manual. The following are some of the specific rules to keep in mind, but be sure to review all the guidelines in detail when you code from Chapter 11 for any patient. We will expand on these guidelines as we discuss the respective subchapters.

- Codes you find in Chapter 11 have sequencing priority over codes used in other chapters. You can use additional codes from other chapters in conjunction with Chapter 11 codes to further specify conditions.

- You are to use Chapter 11 codes only on the maternal record, never on the record of a newborn.

- Code categories 640 through 649 and 651 through 676 have required fifth digits, which indicate whether the encounter is antepartum, postpartum or whether a delivery has occurred.

- The fifth digits that are appropriate for each code number are listed in brackets under each code. In most cases, the fifth digits on each code should be consistent with each other. That is, for example, if a delivery occurs, all of the fifth digits should indicate the delivery.

- You should include an outcome of delivery code, V27.0 through V27.9, on every maternal record when a delivery has occurred. You are not to use these codes on subsequent records for the mother or on the newborn record.
Ectopic and Molar Pregnancy (630-633)

A molar pregnancy is the result of over-production of the tissue that is supposed to develop in the placenta. This condition is characterized by a mass of cysts that resemble a bunch of grapes. A pelvic exam may reveal signs of a normal pregnancy, although some bleeding may be present. However, because there is no fetus, the size of the uterus may be abnormally large and there will be no fetal heart tones. Once the diagnosis is confirmed, if the mass of tissue is not miscarried, it must be removed by suction curettage, or D and C, which means dilation and curettage.

When a fertilized egg develops outside the uterus, this is called an ectopic pregnancy. Although the most common site of an ectopic pregnancy is in the fallopian tubes, it can also occur in the abdominal or pelvic cavity, ovary, uterine tube or cervix. When a fetus begins to develop outside the uterus, the pregnancy is not viable, and the fetus must be surgically removed.

Other Pregnancy with Abortive Outcome (634-639)

The format of the Tabular List in this section is different from anything you have seen to this point. Under the heading for this section is a large shaded box that indicates the fourth-digit subdivisions for categories 634 through 638.

Let’s look at the box carefully because it’s a little different from what you’re used to. You will note the fourth digit with the definition. Then, under the fourth digit and definition are several inclusions to each fourth-digit subdivision. The definition and inclusions are all listed in this one box at the beginning of the category, so that you can refer to them when you are coding. If you turn to code category 634, for example, you will see the definitions provided, but then it is up to you to go back to the box at the beginning of the section to identify all of the possible inclusions under each fourth digit.

This section also has a fifth-digit subclassification box for categories 634 through 637. Each category lists the box separately, but it’s the same box with the same meanings in each instance.

The fifth digit for these codes is required to identify the stage of the abortion. “Complete” indicates that all of the products of conception have been expelled from the uterus before 20 weeks gestation. “Incomplete” indicates that not all of the products of conception have been expelled during this time period. “Unspecified” indicates that the stage of abortion is not specified in the documentation.

Abortion is the expulsion of an embryo or fetus from the uterus before the stage of viability. A spontaneous abortion, or miscarriage, is when the loss of the fetus is the result of natural causes. Therapeutic, elective or legally induced abortions are intentional or deliberate termination of the pregnancy. Therapeutic abortions are those recommended by physicians to protect the mother’s health. Elective abortions are initiated by individual choice, not medical necessity. When the pregnancy continues despite an attempt to end it by legal means, it is termed a failed attempted abortion.

To indicate the complication leading to the abortion, you might use additional codes from categories 640 through 649 and 651 through 659. When used with an abortive code, you would apply the fifth-digit 3 to codes in these categories, which identifies “antepartum condition or complication.” Antepartum means before the onset of labor. You will code complications following abortions using code category 639. This means you cannot use codes from categories 634 through 638 in conjunction with category 639.
Complications Mainly Related to Pregnancy (640-649)

This section **includes** conditions even if they arose or were present during labor, delivery or the puerperium. Codes from categories 640 through 649 apply throughout the entire obstetrical experience, which begins at conception and ends six weeks after delivery. A fifth digit provides information regarding the current episode of care. We will explain these fifth-digit classifications in more detail now.

You will use the fifth digits for codes 640 through 649 to denote the current episode of care. To use these fifth digits appropriately, you need to know some terminology. **Delivery** indicates childbirth, **antepartum** refers to before onset of labor and **postpartum** indicates after childbirth. The fifth digits you can use with each subcategory code are listed in brackets under the code. For example, code 640.0 has [0,1,3] under the code. This means you cannot use a 2 or a 4 as the fifth digit with code 640.0. Be sure to refer to the information in brackets before you make your decision when you apply the final digit for these codes. Also, because multiple coding is common for these code categories, be certain that the fifth-digit assignments are consistent with each other.

Pregnancy sometimes creates conditions that might not otherwise affect the woman. These conditions include hypertension, diabetes and anemia. These conditions did not exist before the pregnancy and will likely not exist after the pregnancy, and so they are known as gestational or transient.

For example, let's code the diagnosis of pregnancy-induced hypertension, undelivered. If you begin the coding pathway using **Pregnancy** as the main term and **complicated (by)**, **hypertension** as the subterms, you are redirected to "see Hypertension, complicating pregnancy." Turn to the Hypertension table, and locate **complicating pregnancy**. The term “pregnancy-induced” tells you that the hypertension was not pre-existing, but was caused by the pregnancy and will probably leave once the baby is delivered. This condition is gestational or transient. So let's look for **gestational** in the hypertension table. Once you find **gestational**, you go to the **Unspecified** column and are provided with the tentative code of 642.3. Then turn to the **Tabular List** to determine the highest level of specificity. The fifth-digit subclassification box is located at the beginning of the section. "Undelivered" is specified in the diagnosis, so you will use the fifth-digit 3 to indicate “antepartum condition or complication.” You assign 642.33 **Transient hypertension of pregnancy, antepartum condition or complication** as the correct code for the diagnosis.

Category 648 includes conditions in the mother that are classifiable elsewhere but complicate the pregnancy, childbirth or puerperium. When coding 648.2 **Anemia**, remember that an additional digit is required and that you should include the applicable condition classifiable to codes 280 through 285.

Normal Delivery, and Other Indications for Care in Pregnancy, Labor, and Delivery (650-659)

A **normal delivery** is the spontaneous, full-term birth of one live baby, delivered vaginally, head first, with no fetal manipulation or instrumental assistance except for an episiotomy. An **episiotomy** is a surgical incision into the perineum and vagina to prevent laceration at the time of delivery, or to facilitate vaginal surgery. Be aware that you cannot use code 650 with any other code from groups 630 through 676 because these codes are not within the boundaries of the definition of a normal delivery. For example, a woman who will be 35-years-old or older at the expected date of delivery will be coded 659.5 ✔ or 659.6 ✔ and code 650 will not apply. V27.0 is the only appropriate code to use with code 650.
Before you try your hand at coding a scenario, here are a few more terms for you to understand to help you code accurately:

- **Gravida**—means a pregnant woman. *Gravida* followed by an Arabic numeral or preceded by a Latin prefix (primi-, secundi-) designates the number of pregnancies.

- **Gravida 1 or primigravida**—refers to a woman in her first pregnancy.

- **Gravida 2 or secundigravida**—refers to a woman in her second pregnancy.

- **Para**—means a woman who has given birth to one or more viable infants. *Para* followed by an Arabic numeral or preceded by a Latin prefix (primi-, secundi-, terti-, quadri-) designates the number of times a pregnancy has culminated in a single or multiple birth.

- **Para 1 or primipara**—refers to a woman who has given birth for the first time.

- **Para 2 or secundipara**—refers to a woman who has given birth for the second time to one or more infants.

In our next example, the patient is gravida 2, para 1, which means this is her second pregnancy and she has given birth once. Carefully read through the delivery notes, and then see how far you can go in determining the correct code or codes for the information presented.

**DELIVERY NOTE**

The patient is a 32-year-old, gravida 2, para 1, at term who presented to labor and delivery in active labor. The patient’s labor progressed rapidly, and she was completely dilated at approximately a +2 station. The patient went on to have a normal spontaneous vaginal delivery over an intact perineum. She was delivered of a viable female in cephalic presentation, Apgars were 8 at five minutes and 9 at ten minutes. The birth weight was 3628 gm.

The delivery time was 1628. The placenta delivery time was 1637 and was spontaneous. The perineum was examined and noted to have no lacerations of any type. The estimated blood loss at delivery was 300 mL. There were no complications during delivery.

The patient had a normal spontaneous vaginal delivery without manipulation or assistance, resulting in a single liveborn infant.

Based on the documentation, you can code this to a **normal delivery**, code 650, with a **single liveborn** as the outcome of delivery, code V27.0. Did you come up with the same codes? Excellent!

Here are a few more explanations and clarifications to help you as you practice coding conditions from this section. Indications for care in pregnancy, labor and delivery include malposition and malpresentation of fetus, disproportion and abnormality of organs and soft tissues of pelvis. You’ll note in the *Tabular List* that these conditions direct you to code first any associated obstructed labor, and to provide the obstruction code. We will revisit these codes when we discuss obstructions in the next section.

Known or suspected fetal abnormalities that affect the management of the mother, in code category 655, are conditions that range from central nervous system malformations, to chromosomal abnormalities, to decreased fetal movement. Other fetal and placental problems that affect the management of the mother, in code category 656, include fetal-maternal hemorrhage, Rh incompatibility and intrauterine death. Keep in mind that you can assign these codes only when the fetal condition is actually responsible for modifying the management of the mother. Just the fact that the fetal condition exists does not justify assigning a code from this series to the mother’s record.
Polyhydramnios, or hydramnios, is the presence of excess amounts of amniotic fluid. This code category, 657, instructs you to use 0 as the fourth digit and 0, 1 or 3 as the fifth-digit subclassification. To code the mother’s condition of antepartum hydramnios, for example, you would locate the main term Hydramnios in the Index to Diseases. Remember that when you refer to the mother's condition, so you will not choose the code for “affecting fetus or newborn.” Instead, you will select the tentative code of 657.0. Then turn to the Tabular List to determine the highest level of specificity. There, you are explicitly instructed to choose 0 as the fourth digit for this code category. And because this is an antepartum condition, you will select 3 as the fifth-digit subclassification. So the correct code to assign is 657.03 Polyhydramnios, antepartum condition or complication.

Complications Occurring Mainly in the Course of Labor and Delivery (660-669)

This section contains codes for conditions such as obstructions, trauma to perineum and vulva during delivery, complications of the administration of anesthetic or other sedation in labor and delivery and other complications of labor and delivery, not elsewhere classified. You will note that the fifth-digit subclassification that applies to categories 660 through 669 is identical to the fifth-digit subclassifications used previously in this chapter.

Let’s slow down here and focus carefully as you read through the guidelines for coding the following conditions. You might even want to highlight this portion so you can quickly come back to it throughout the rest of your coding practice. You might want to review this even as you begin coding professionally, until you’re comfortable with how to apply these codes. The main thing to remember is that when another condition causes obstruction of labor, you will use an additional code to identify that condition.

- Code 660.0 Obstruction caused by malposition of fetus at onset of labor requires an additional code to identify the condition that is classifiable to code category 652 Malposition and malpresentation of fetus.
- Code 660.1 Obstruction by bony pelvis requires an additional code to identify the condition that is classifiable to code category 653, Disproportion.
- Code 660.2 Obstruction by abnormal pelvic soft tissue requires an additional code to identify the condition that is classifiable to code category 654, Abnormality of organs and soft tissues of pelvis.

In sequencing these codes, you will code the obstruction (660) first, followed by the cause. When malposition or malpresentation of the fetus occurs, it can cause an obstruction.

A breech delivery, in code category 652, is when the fetal presentation is that of the buttocks or feet first. This presentation usually causes an obstruction, which requires assistance during delivery, and sometimes, with manipulation, it can be converted to cephalic presentation. Remember, with this situation, you will use code 660.0 in conjunction with a code from category 652.

When you’re ready, go ahead and read carefully through the following childbirth-related operative report, and then, based on the information presented, try your skills at solving the puzzle to identify the accurate diagnosis code or codes.
PREOPERATIVE DIAGNOSIS
Intrauterine pregnancy at term. Premature rupture of membranes. Frank breech, causing obstruction.

POSTOPERATIVE DIAGNOSIS
Cesarean delivery due to breech presentation.

PRIMARY PROCEDURE
PRIMARY LOW TRANSVERSE CESAREAN SECTION.

DESCRIPTION AND FINDINGS
The patient underwent an epidural block administered by anesthesiology, and immediately after that, she was prepped and draped in the usual manner. A Pfannenstiel incision was used, and the abdominal wall was then dissected using sharp and blunt dissection. With careful extraction, a female fetus was then delivered in the frank breech position. Apgars of the fetus were 8 and 9. Cord was clamped and cut. Blood was drawn from the infant for type and cross match and Rh factor. The placenta was expressed manually and visually inspected. The pelvic cavity was then inspected, and intensive irrigation was carried out. The uterus was closed. Ovaries and tubes were inspected and noted to be normal. Closure of the abdomen was accomplished. The skin was then closed with staples. The patient then was transferred to a recovery room in stable condition.

Are you comfortable with your results? Don’t worry if coding this one took you a while, or you had a little trouble figuring it all out—the scenario is quite involved, and you can easily go down the wrong coding pathway until you have had enough practice and experience working with these code groups. Let’s go through the steps to solve this puzzle together, and you can see how well you did and, if necessary, get some pointers that will help you improve your skills for next time.

1. Assess the information and recognize that there are several conditions you need to be aware of and code for. Try the principal coding pathway of Delivery, breech. Following this path in the Index to Diseases, you find a tentative code of 652.2. You should also note that you must use a fifth-digit subclassification with this group of codes.

2. In the Tabular List, you find code 652.2 Breech presentation without mention of version; the fifth-digit options of 0, 1 and 3 are indicated in brackets under the code. From the fifth-digit options given, you should make a mental note of 1 for “delivered, with or without mention of antepartum condition” as the fifth digit to assign. You should also note that “Frank breech” is included as a subterm under code 652.2. Finally, code 652 instructs us to code first any associated obstructed labor, using code 660.0. Putting all the information together, you determine that the final code for this part of the diagnosis is 652.21.

3. Next, you focus on the coexisting diagnosis code for obstructed labor, 660.0 Obstruction caused by malposition of fetus at onset of labor. Again, the fifth-digit options of 0, 1 and 3 are indicated in brackets below this code, and you already know that the correct fifth digit based on the operative report is 1, “delivered, with or without mention of antepartum condition.” So the final coexisting diagnosis code is 660.01.

4. You must also include an outcome of delivery V code from codes V27.0 through V27.9 for the mother’s record. To locate the proper V code, use outcome of delivery, single, liveborn as the pathway for the tentative code V27.0 Based on the documentation, you determine that code V27.0 Single liveborn is the correct code for this portion of the diagnosis.
5. The only thing left to do is put the codes in the correct order. Again, based on the guidelines in the ICD-9-CM manual, you know that you are to code 660.01 first. The correct listing of the three codes for this report is 660.01 652.21 V27.0.

You’ve accomplished a lot so far in this lesson! That coding exercise took some time and careful maneuvering through all the guidelines and instructions we’ve discussed. Just know that if you are working as a healthcare document specialist in the maternity and childbirth areas, you will have frequent and regular practice using these codes, and you will quickly become quite familiar with them!

More Pregnancy, Childbirth, and Puerperium Terminology and Examples

Trauma to the perineum and vulva during the delivery are categorized as *perineal laceration* or vulva and perineal hematoma. These conditions **INCLUDES** both damage from instruments and that from the extension of the episiotomy. Remember that an episiotomy is a surgical incision into the perineum and vagina to prevent laceration at the time of delivery, or to facilitate vaginal surgery. If an episiotomy is not sufficient in length, the perineum may tear, which can result in a second- to fourth-degree laceration. If the extent of the perineal laceration is not noted, you will code to “unspecified.” Otherwise, you will assign one of the following types:

- **First-degree perineal**—indicates the perineal skin is torn.
- **Second-degree perineal**—laceration, rupture, or tear involves the perineal muscles.
- **Third-degree perineal**—laceration, rupture, or tear consists of the anal sphincter.
- **Fourth-degree perineal**—laceration, rupture, or tear is classifiable to a third-degree laceration but includes the anal or rectal mucosa.

So let’s say the physician notes excessive fetal growth and performs an episiotomy during labor to assist the vaginal delivery. Upon delivery, the episiotomy tears, extending to the vaginal muscles. What would you code for this condition? You would code the perineal laceration, the excessive fetal growth and the outcome of the delivery. Let’s do that now.
ICD-9-CM Coding—From Respiratory System to Complications of Pregnancy

For the perineal laceration, try a coding pathway of laceration, perineum. In the Index to Diseases, under Laceration, you find perineum, perineal and then, under that, complicating delivery. Going further, you find involving and then vaginal muscles, with a suggested code of 664.1. Remember that you must also include a fifth digit to indicate the status of delivery—in this case a 1 for “delivered.” Now you go to the Tabular List to determine the highest level of specificity, and the information there confirms our selection of code 664.11 Second-degree perineal laceration, delivered, with or without mention of antepartum condition as the correct choice.

Next, you will code for the excessive fetal growth. A reasonable coding pathway is excessive, fetal. You find Excess, excessive, excessively, but fetal isn’t listed as a subterm. Large, however, is a subterm, and fetus or infant is listed under large. Of the subterms under fetus or infant, the most appropriate is affecting management of pregnancy 656.6. Also remember that you must add the fifth digit of 1 for “delivered.” Going to the Tabular List, you find 656.6 Excessive fetal growth, and add the fifth-digit 1, for a final code of 656.61.

Finally, you review the V codes for the correct outcome of delivery code, and determine that once again V27.0 Single liveborn is the correct choice. Following the coding guidelines discussed earlier, you will list these codes in the following order: 664.11 656.61 V27.0.

Here are some final notes to help you code diagnoses in code groups 668 and 669. Codes for complications resulting from the administration of anesthetic or other sedation in labor and delivery, code group 668 INCLUDES those complications that arise from the administration of general or local anesthetic, analgesic or other sedation in labor and delivery. It EXCLUDES any reaction to a spinal or lumbar puncture, as well as a spinal headache. These complications can be pulmonary, cardiac or central nervous system conditions.

Shock, hypotension and renal failure are conditions that might appear during or following labor and delivery that you will code to category 669 Other complications of labor and delivery, not elsewhere classified. Complications included in category 669 are methods of delivery without mention of indication. This means the reason the physician selected this type of delivery is not specified. Forceps or vacuum extractor delivery, breech extraction and cesarean delivery are examples of these types of complications.

Complications of the Puerperium (670-677)

This section includes a collection of various complications that might occur during the puerperium. The puerperium is the period of time from the end of the third stage of labor until the uterus returns to its normal size, which usually requires three to six weeks. Code categories 670 and 673 through 676 include the listed conditions, even if they occur during the pregnancy or childbirth. You will find the fifth-digit subclassification box for code options to denote the current episode of care. Conditions in this section include major puerperal infection, deep phlebothrombosis, obstetrical pulmonary embolism, disorders of the breast associated with childbirth and late effects of complications of pregnancy and childbirth.

Infection and inflammation following childbirth are coded in group 670 Major puerperal infection. Turn to the Tabular List for additional notes pertaining to this category. First, you will note that the fourth digit for this category is 0, “unspecified as to episode of care or not applicable.” You will determine the episode of care from the fifth-digit subclassification choices of 0, 2 or 4. Infections and inflammations included in this category are listed. Finally, note the EXCLUDES to ensure that you code accurately from this section.

Deep phlebothrombosis, or deep-vein thrombosis, is the presence of blood clots deep in the veins, usually in the leg. Pregnant women have an increased chance of developing these clots, both antepartum (671.3) and postpartum (671.4). This condition becomes life-threatening if one of those clots moves to the lungs and results in a pulmonary embolism, code 673.
Infections of the breast and nipple associated with childbirth pertain to the mother and INCLUDES the conditions present during pregnancy, childbirth or the puerperium. These conditions include abscess of the nipple and breast and mastitis, which is an inflammation of the breast tissue. Let’s code the following situation to give you some practice working with codes in this section.

**SUBJECTIVE**
A 26-year-old female is seen by her OB/GYN 2 weeks after giving birth to her 1st child. She complains of pain and swelling of the right breast. She has had no problem breastfeeding.

**OBJECTIVE**
Physical exam of breast reveals a lump in the right breast. There is tenderness when palpating the nodes in the right armpit. She is afebrile.

**ASSESSMENT**
Mastitis.

**PLAN**
Recommend moist heat on affected breast for 20 minutes, 4 x a day until symptoms subside.

With this basic diagnosis, the coding pathway is simply Mastitis. Looking up this term in the Index to Diseases should give you a tentative code of 611.0. Now turn to the Tabular List to determine the highest level of specificity, and you will note that category 611 EXCLUDES mastitis associated with lactation or the puerperium, which is what you’re coding. So go back to the Index to Diseases and check the subterms more closely.

You will find puerperal, postpartum (interstitial) (nonpurulent) (parenchymatous) under Mastitis, and 675.2 as the tentative code. Turn back to the Tabular List and find this code. You are now in the category for infections of the breast and nipple associated with childbirth, so code 675.2 seems right so far. Remember to add a fifth-digit 4 to indicate that the episode of care is a postpartum condition or complication. Because the delivery occurred two weeks ago, you would not assign a code for the outcome of the delivery in this case. Based on all the information you have found through this process and in the Tabular List, you will assign 675.24 Nonpurulent mastitis, postpartum condition or complication as the correct code.

Once again, you should feel very good about all the hard work you have done, and all the new information you have learned in this lesson. Now it’s time to complete the last Practice Exercise of the lesson to review this last step before you wrap things up with the Quiz.
Step 13: Practice Exercise 26-4

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Ovarian pregnancy
   ICD-9-CM code:

2. Complete miscarriage at 12 weeks
   ICD-9-CM code:

3. Partial placenta previa with hemorrhage, undelivered
   ICD-9-CM code:

4. Hyperemesis gravidarum at 20 weeks’ gestation
   ICD-9-CM code:

5. Normal vaginal delivery of healthy twins
   ICD-9-CM code:
   ICD-9-CM code:
   ICD-9-CM code:

6. Secundigravida, with previous cesarean delivery, delivered a single liveborn by vaginal delivery.
   ICD-9-CM code:
   ICD-9-CM code:

7. Third-degree perineal laceration extending to anal sphincter during delivery of healthy baby girl.
   ICD-9-CM code:
   ICD-9-CM code:

8. Postpartum pulmonary embolism
   ICD-9-CM code:

9. Maternal cracked nipple two weeks after delivery
   ICD-9-CM code:
10. ICD-9-CM Coding Challenge

ADMITTING DIAGNOSIS
Intrauterine gestation, at term, in active labor.

HISTORY OF PRESENT ILLNESS
This is a 30-year-old, gravida 1, para 0, with unknown LMP and no prenatal care who came in complaining of contractions and active labor.

DELIVERY NOTE
The patient had ultrasound done on admission that showed gestational age of 38-2/7 weeks. The patient progressed to a normal spontaneous vaginal delivery over an intact perineum. Rupture of membranes occurred on December 25, 20XX, at 2008 hours via artificial rupture of membranes. No meconium was noted. Infant was delivered on December 25, 20XX, at 2154 hours. Prior to rupture of membranes, 2 doses of ampicillin were given. GBS status unknown. Intrapartum events, no prenatal care. The patient had epidural for anesthesia. No observed abnormalities were noted on initial newborn exam. Apgar scores were 9 and 9 at 1 and 5 minutes respectively. There was a nuchal cord x 1, nonreducible, which was cut with 2 clamps and scissors prior to delivery of body of child. Placenta was delivered spontaneously and was normal and intact. There was a 3-vessel cord. Baby was bulb suctioned and then sent to newborn nursery. Mother and baby were in stable condition. EBL was approximately 500 mL. NSVD with postpartum hemorrhage. No active bleeding was noted upon delivery of the placenta. Upon delivery of the placenta, the uterus was massaged, and there was good tone. Pitocin was started following delivery of the placenta. Baby delivered vertex from OA position. Mother following delivery had a temperature of 100.7, denied any specific complaints and was stable following delivery.

ICD-9-CM code:

---

Step 14: Review Practice Exercise 26-4

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 15: Lesson Summary

Do you remember our discussion comparing running a marathon to completing the previous lesson in this course? We can now expand that analogy and consider that you’ve completed another major marathon with the completion of this complex lesson about how to code conditions related to the respiratory and digestive systems, including all those conditions associated with pregnancy and childbirth. Soon you will be a star “athlete” when it comes to ICD-9-CM coding skills!

Always remember to balance your time between hard work on these lessons and enough rest and time away to keep your mind fresh. And continue to review the basics of everything you’ve studied before you begin a new lesson so you go into the new material with the previous information fresh in your mind.

Good work on this lesson! Now go ahead and complete the Quiz and you’ll soon be ready to begin a new “chapter” in your healthcare document specialist education!
Step 16: Quiz 18

Once you’ve mastered the course content, locate this Quiz in your *Online Course* or your *Assignment Pack*. Read and follow the Quiz instructions carefully.

**Just for Fun**

Before you begin the next lesson, let’s think about the organ systems you’ve studied so far. You’ve looked at diagrams of different systems, such as the respiratory, digestive and circulatory. You probably know that medical students don’t just look at pictures of organ systems; they must dissect them, as well. Are you too squeamish to do this? Don’t worry. It’s natural. After a few days, the feeling passes. But thank goodness all you have to do as a healthcare document specialist is transcribe, code and bill diagnoses and procedures. The only things you have to dissect are terms.

You may think that working with organs, dissecting them, handling them and talking about them would make a doctor callous to the wonder of life. If you forget to honor your patients, that might happen. The answer lies in attitude.

An important part of medical education is to remember to honor life and your patients. How do you do this? You develop the feeling of honor. How does that feel? Well, if you just learned that you’d won a prestigious award, you’d probably take in a deep breath and smile inside. Do that right now. Take in a deep breath, look at that award and think about how happy you are inside. It’s such an honor to receive it!

Should you have the opportunity to look at organs, feel the honor given to you to learn from what was once a living being. Treat the organs with the respect they deserve. Make sure they are used for only the best of intentions. Apply this same feeling to the honor patients give to you by entrusting you with their medical information.

Now, let’s get started with your next lesson and learn about even more organ systems as they pertain to medical coding.
Good job!

When working with the ICD-9-CM, keep the basics in mind and you’ll continue to succeed.

Turn the page to study the next section of ICD-9-CM codes.

This lesson will teach you how to code conditions from the musculoskeletal system.

No need to wait for your Quiz results to move on to the next lesson.
Lesson 27
ICD-9-CM Coding—
From Diseases of the Skin to Conditions in the Perinatal Period

Step 1: Learning Objectives for Lesson 27

When you have completed the instruction in this lesson, you will be trained to do the following:

- Define complications of diseases of the skin, subcutaneous tissue, musculoskeletal system and connective tissue; congenital anomalies; and conditions in the perinatal period.
- Explain the basic exclusions, inclusions and rules related to Chapters 12 through 15 of the Tabular List in the ICD-9-CM manual.
- Identify the diagnosis, outline the coding pathway and assign the final code for the documented disorders and diseases.

Step 2: Lesson Preview

In this ICD-9-CM coding lesson, you will encounter a broad mix of diagnosis codes with lots of tips and pointers to help you select the correct codes. You will learn about diseases and conditions of the skin, muscles, bones and connective tissue. You will also learn about congenital anomalies and conditions in the perinatal period. Moreover, you will learn how to find and confirm the correct codes for these many conditions and diseases. As always, you will have the opportunity to apply what you are learning as you practice coding the sample scenarios and exercises provided for you throughout the lesson. So let's continue on the journey through the ICD-9-CM manual and diagnosis coding!

To help make sure you don't get confused as you code the Practice Exercises and scenarios throughout the following ICD-9-CM coding lesson, it's important to keep in mind that we are focusing for now only on ICD-9-CM codes—not CPT codes. You will see physician notes and documentation about specific procedures in some of the scenarios we use just because we want you to practice with authentic examples. But remember that you will code only the diagnoses during these lessons—you'll have plenty of time and lots of practice combining procedural and diagnostic codes in later lessons.
Step 3: Diseases of the Skin and Subcutaneous Tissue
(680-709)

Chapter 12 of the ICD-9-CM manual’s Tabular List contains codes for the skin, which is the largest organ in the body. The skin is the covering that protects all other organs by acting as a barrier against infection and disease.

The cells of the skin constantly change and adapt to outside influences. Because the skin is constantly exposed, it is a prime target for infection, inflammation and other diseases. The skin has a limited reaction pattern to diseases. This means that it responds to most infections and diseases by producing the same symptoms, such as redness or blistering.

The skin consists of a thick outer layer, called the epidermis, and a thicker inner layer, called the dermis. The skin also includes appendages, which are structures that grow within the skin. Skin appendages are hair, nails and glands (sebaceous, apocrine and eccrine). The epidermis continually forms new cells in its deepest layer and sheds dead cells at its surface.

The epidermis contains melanin, the pigment that gives the skin color. The epidermis or cuticle consists of stratified squamous epithelial tissue. The epidermis of the palms of the hands and soles of the feet has the following layers: stratum corneum (horny layer), stratum lucidum (clear layer), stratum granulosum (granular layer), stratum spinosum (prickle cell layer) and stratum germinativum (basal layer). The stratum lucidum is present only in the thick skin of the palms and soles.
The epidermis contains melanin, the pigment that gives the skin color. The epidermis or cuticle consists of stratified squamous epithelial tissue. The epidermis of the palms of the hands and soles of the feet has the following layers: stratum corneum (horny layer), stratum lucidum (clear layer), stratum granulosum (granular layer), stratum spinosum (prickle cell layer), and stratum germinativum (basal layer). The stratum lucidum is present only in the thick skin of the palms and soles.

The dermis or corium consists of fibrous connective tissue. It is primarily composed of fibrils of collagen. Collagen is responsible for the mechanical strength of the skin. The dermis is the layer of skin that lies beneath the epidermis and consists of the papillary (or superficial) layer and the reticular (or deeper) layer. The dermis contains blood vessels, lymphatics, nerves, nerve endings, muscle, hair follicles, sebaceous and sweat glands.

Infections of Skin and Subcutaneous Tissue (680-686)

This section of Chapter 12 contains codes for infections of the skin and subcutaneous tissue, which is the layer of loose connective tissue located directly beneath the skin. These conditions EXCLUDES certain infections of skin classified in Chapter 1 of the Tabular List, “Infectious and Parasitic Diseases.” Examples of these exclusions are listed at the beginning of the section. For categories 681 through 683, and for category 686, you are to use an additional code to identify the organism that is causing the infection if the organism is documented.

A furuncle is a painful nodule formed in the skin by enclosing an inflammation of the dermis and the subcutaneous tissue enclosing a central core. The furuncle is commonly known as a boil. A furuncle is caused by staphylococci that enter through the hair follicles. A carbuncle is an infection of the skin and subcutaneous tissue composed of a cluster of furuncles, or boils, usually due to Staphylococcus aureus, which results in cell death. When you code a carbuncle or furuncle, you will code to the site. Note that codes found in this category, 680 Carbuncle and furuncle contain some EXCLUDES.

Cellulitis is an acute, widely distributed, spreading, fluid-filled, pus-producing, suppurative inflammation of the deep subcutaneous tissues and sometimes muscles. This condition may be associated with abscess or localized collection of pus formation. Again, codes are provided for you to specify the site of the infection. The following terminology will help you code conditions in this section correctly:

- **Felon** is a painful abscess caused by infection in the closed space of the fingertip.
- **Onychia** is an inflammation of the nail matrix that causes nail loss.
- **Paronychia** is an inflammation of the tissue folds around the nail.
Now that you have some basic definitions and coding information for this section, let's put your ICD-9-CM book to work by coding the following scenario:

CT OF NECK
Axial slices were obtained from the base of the skull to the thoracic inlet, following intravenous contrast infusion. Soft-tissue and bone window images were obtained for interpretation. There is an irregular fluid collection seen with adjacent soft-tissue density at the level of the vocal cord, just medial to the sternocleidomastoid muscle. Further collection appears to extend superiorly to the level of the hyoid bone and inferior to the level of the thyroid. Adjacent soft-tissue swelling is seen. There are several small lymph nodes seen at the left side of the neck. The findings are consistent with the clinical diagnosis of left deep neck abscess. Remainder of the findings appear unremarkable.

IMPRESSION
Left deep neck abscess as described above.

To code this radiology scenario, use the coding pathway of Abscess, neck. Following this pathway in the Index to Diseases, you find 682.1 as the tentative code. Then, turning to the Tabular List to determine the highest level of specificity, you find code 682.1 Other cellulitis and abscess, Neck is the correct code.

Other Inflammatory Conditions of Skin and Subcutaneous Tissue (690-698)

This section contains a variety of diseases with symptoms such as inflamed, erupting, red, scaly and itching skin. These conditions include seborrheic dermatitis, contact dermatitis, erythematous conditions, psoriasis and pruritus.

Seborrheic dermatitis is a common chronic disease that affects about 15 percent of the U. S. population. The symptoms of seborrheic dermatitis are typically reddening, scaling and itching of the skin, especially under the nose, in the eyebrows and on the scalp. The skin becomes dry and begins to flake. This condition can be categorized as “infantile,” “cradle cap” or “unspecified.” On the scalp, this condition is known as dandruff. To code Dandruff, for example, locate that main term in the Index to Diseases, and you will find the code of 690.18. In the Tabular List, you find 690.18 Other seborrheic dermatitis. And although dandruff isn't specified as an inclusion, based on the Index to Diseases directions, you can be comfortable that this is the correct code.

Contact dermatitis, also referred to as eczema, is an acute or chronic inflammatory rash marked by itching and redness that is the result of cutaneous contact with a specific allergen or irritant. This code category, 692, has many inclusions to assist you with accurate coding. Review the codes carefully when you are coding from this section.

Psoriasis is a common skin inflammation characterized by the eruption of reddish, thick, dry, silvery-scaled skin, predominantly on the elbows, knees, scalp and trunk. This condition is incurable, and treatment is focused on controlling the symptoms. A specific type of psoriasis, pityriasis rosea is an eruption of macules or papules that involves the trunk and, less frequently, the extremities, scalp and face. The onset of pityriasis rosea is frequently preceded, about a week before, by a single, larger, scaling lesion known as the herald patch, which lasts about six to eight weeks. Then the lesions, which are usually oval, occur, following the crease lines of the skin. Spontaneous remission occurs in approximately eight weeks. Treatment for this condition consists of relieving the symptoms rather than curing the rash.
Other Diseases of Skin and Subcutaneous Tissue (700-709)

This section **EXCLUDES** conditions that are confined to the eyelids, and congenital conditions of the skin, hair and nails. The codes here cover **corns** and **calluses**, seborrheic keratosis, nail diseases, hair loss, heat rash, acne, bed sores, hives and freckles. We will discuss some of these conditions in this lesson.

**Corns** are localized thickening of the skin. They are caused by continuous pressure over bony areas of the foot, especially the metatarsal head. This frequently causes localized pain. Shoes that do not fit properly can cause corns. **Callosities** is commonly known as a **callus**. It is an area of thickened skin. It is caused by regular or prolonged pressure or friction. Gardeners can develop calluses on the palms of their hands, joggers on the soles of their feet, and guitarists on the tips of their fingers.

Diseases of the nails **EXCLUDES** congenital anomalies, as well as onychia and paronychia, which we discussed earlier in this lesson. An **ingrowing nail** (also often called an **ingrown nail**) is a condition that usually affects the toenail, but it can be of the fingernail, as well. In this condition, one edge of the nail is overgrown by the nailfold and a pus-forming lesion is produced. Ingrown nails are the result of faulty trimming of the nails or pressure from a tight shoe on the toenails. You are to use code 681.9 if a general infection of the nail is documented. To code an ingrowing toenail, simply locate **Ingrowing** as the main term in the *Index to Diseases*, and then **nail** as the subterm. When you check out the tentative code of **703.0** in the *Tabular List*, you will find that **703.0 Diseases of nail, Ingrowing nail** is the accurate code.

One condition included in diseases of the hair and hair follicles is **alopecia**, which is a lack of hair, or **baldness**. Baldness is not usually caused by a disease but instead is influenced by age, genetics and testosterone. The average scalp contains approximately 100,000 hairs, and it loses about 100 hairs per day. When a hair falls out, it is replaced within six months with a new one. When the body fails to replace the fallen hair, this is known as genetic hair loss. Hair loss is a gradual process of losing hair in patches or over the entire head.

Code group **707 Chronic ulcers of the skin** **INCLUDES** noninfected sinus of the skin and nonhealing ulcers. This condition **EXCLUDES** varicose ulcers.

A **pressure ulcer** (code 707.0), commonly known as a **bed sore** or a **decubitus ulcer**, is an area of skin that breaks down as the result of constant pressure that reduces the blood supply, which in turn causes the tissue in that area to die. Bed sores are a common condition for persons confined to beds or wheelchairs.

When coding a pressure ulcer, you are instructed to use an additional code to identify the pressure ulcer stage using codes 707.20 through 707.25.

There are four stages of pressure ulcers:

**Stage I**—Pressure pre-ulcer skin changes are limited to persistent focal erythema. In this stage, the sores are not opened wounds, although the skin is closed, it can be very painful. The skin may be warm, firm or stretched.

**Stage II**—Pressure ulcer may have abrasions, blisters or partial thickness skin loss involving the epidermis and/or dermis. The skin is tender and painful. Bacteria can enter the site due to the opened wound.

**Stage III**—Pressure ulcer with full thickness skin loss involving damage or necrosis of the subcutaneous tissue. The skin breaks down and looks like a crater, in which there is damage to the tissue below the skin. The fat layer is exposed.

**Stage IV**—Pressure ulcer with necrosis of soft tissues through to the underlying muscle, tendon or bone. The pressure ulcer is very deep, causing extensive damage.
Let's practice coding one more diagnosis from this section before you review what you’ve studied so far. Read through the following report and determine the correct code or codes for the diagnosis.

**PREOPERATIVE DIAGNOSIS**
Chronic stage IV decubitus ulcer of the right heel.

**POSTOPERATIVE DIAGNOSIS**
Same.

**PRIMARY PROCEDURE**
EXCISIONAL DEBRIDEMENT OF SKIN AND SUBCUTANEOUS TISSUE OF HEEL.

**PROCEDURE**
The patient’s foot was prepped with dilute betadine solution. Following this, the necrotic tissue surrounding the ulcer was sharply excised through the skin and the subcutaneous tissue. The tissue was debrided until it started to bleed around the edge of the ulcer. Adequate hemostasis was noted. This process was accomplished with minimal local anesthesia, and the patient tolerated it with little or no pain. The wound was packed with saline-dampened gauze and wrapped with sterile dressings.

For this operative report, you will choose a coding pathway of Ulcer, decubitus, heel, which provides the tentative code of 707.07 in the Index to Diseases. Check that code in the Tabular List and you’ll find it’s correct. Now, you need to identify the stage of the ulcer. This time your coding pathway is Ulcer, pressure, stage, IV. The code indicated is 707.24. After verifying this code you will assign 707.07 Chronic Ulcer of skin, Pressure ulcer, Heel and 707.24 Pressure ulcer stage IV to this operative report.

**Step 4: Practice Exercise 27-1**

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Boil located on the back of the right ear  
   ICD-9-CM code:

2. Severe sunburn of face and neck  
   ICD-9-CM code:

3. Eczema due to cat hair  
   ICD-9-CM code:

4. Lupus erythematosus  
   ICD-9-CM code:

5. Perianal itch  
   ICD-9-CM code:

6. Baldness  
   ICD-9-CM code:
7. Patient is hemiplegic due to cerebrovascular disease presenting with stage II pressure ulcer located on buttocks, resulting from contact with wheelchair.

ICD-9-CM code:

ICD-9-CM code:

ICD-9-CM code:

Use the following information to complete the CMS-1500 that follows.

8. ICD-9-CM Coding/Billing Challenge

---

<table>
<thead>
<tr>
<th>Sarah Duncan, MD</th>
<th>SSN: 333-33-0003</th>
</tr>
</thead>
<tbody>
<tr>
<td>1414 Swallow Street</td>
<td>NPI: 0203048901</td>
</tr>
<tr>
<td>Yourtown, CO 80000</td>
<td>Participating Provider for</td>
</tr>
<tr>
<td>(970) 555-1514</td>
<td>Blue Cross, Mutual Life and Medicare</td>
</tr>
</tbody>
</table>

**Patient Information**

- **Name**: Emma Smith
- **Date of Birth**: 1-30-30
- **Sex**: F
- **Marital Status**: widowed
- **Address**: 1410 Iris Drive
- **City**: Mytown
- **State**: CO
- **ZIP**: 80001
- **Home Phone**: 970-555-5843

**Employment Information**

- **Name of Employer**: retired
- **Occupation**: Student
  - Full time
  - Part time

**Insurance Information**

- **Primary Insurance**
  - **Name**: Medicare
  - **ID#**: 501 00 7319A
  - **Group#**: 600 Grant Street Ste 600
  - **City**: Denver
  - **State**: CO
  - **ZIP**: 80203
  - **Primary Insured Name**: Emma
  - **Relation to Patient**: Employer
  - **DOB**: 

**Secondary Insurance**

- **Name**: none
- **ID#**: Group#
- **Address**: City
  - **State**: ZIP
  - **Secondary Insured Name**: 
  - **Relation to Patient**: 
  - **DOB**: 

**Employer**

I authorize the release of any information including diagnosis and treatment. I authorize my insurance carrier to pay directly to the doctor any benefits otherwise payable to me.

---

**Signature of patient (or parent of minor child)**

**Physician signature**: Sarah Duncan, MD

**Date of Service**: 7/12/XX

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Procedure</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99212 Office visit level 2</td>
<td>$50.00</td>
</tr>
</tbody>
</table>

**Today’s Charge**: $50.00

**Cash/Check**: $0.00

**Balance**: $50.00
Name: Emma Smith  
DOB: January 30, 1930  
Date of Service: July 12, 20XX

SUBJECTIVE  
Patient developed “infection in my cuticle.” The patient gets regular acrylic manicures. Washes hands 1 or 2 x a day. Otherwise, no excessive exposure to water or detergents.

OBJECTIVE  
Vital signs are normal. There is redness and swelling of the perionychium at the base of the right index finger. The nail is raised, and there is suppuration present.

ASSESSMENT  
Paronychia.

PLAN  
Incision and drainage. Culture and sensitivity. Cephradine 500 mg p.o. t.i.d. for 10 days. Return in 3 days for observation and results of culture.
**Step 5: Review Practice Exercise 27-1**

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Chapter 13 of the *Tabular List* contains codes for diseases, disorders and pains of the joints, bones and cartilage located in the musculoskeletal system, as well as acquired musculoskeletal deformities. The **musculoskeletal system** is composed of the **skeletal system** and the **muscular system** because they work closely together. The **skeletal system** is the “backbone” of the body, while the **muscular system** consists of tissues that produce movement anywhere in the body by contracting and relaxing. Connective tissues bind together and support various structures of the body.

At the beginning of Chapter 13 of the *Tabular List*, you will find a fifth-digit subclassification box to be used with codes in categories 711 through 712, 715 through 716, 718 through 719 and 730. The fifth-digit subclassification indicates the affected site. You will refer to this box often when coding from the sections of Chapter 13. You are also instructed to use an additional external cause code to identify the cause of the musculoskeletal condition if applicable.

### Arthropathies and Related Disorders (710-719)

You will find codes for diseases that affect the joints and disorders related to these conditions in this section. The section includes codes for diseases of the connective tissue, infections of the joints, *rheumatoid arthritis*, *osteoarthritis*, *derangement* and other disorders of the joints. The codes in this section **EXCLUDES** disorders of the spine, which are included in the next section. **Systemic lupus erythematosus**, also referred to as SLE or lupus, is a chronic inflammatory disease of the connective tissue that can affect many organ systems. Characteristics of this disease include fever, weakness, muscle and joint pain, anemia and a “butterfly” rash around the cheeks and forehead. There is no cure for SLE. Treatment focuses on the symptoms.

Because SLE can affect many organ systems, you are to use an additional code to identify the manifestation. To code systemic lupus erythematosus, locate the main term *Lupus* in the *Index to Diseases*, where you will find the tentative code of 710.0. If you look down the list of subterms, you will find that *erythematosus*, *systemic* provides the same code. Turn to the *Tabular List* to determine the highest level of specificity. Based on the information here, you will see that 710.0 **Diffuse disease of connective tissue, Systemic lupus erythematosus** is the correct code.

“Arthropathy associated with infections” refers to any infectious disease that affects a joint. This code category **EXCLUDES** rheumatic fever, which you will code from category 390. **Crystal arthropathies** are joint diseases caused by urate, or salt of uric acid, crystal deposits in joints or synovial membranes. This category **EXCLUDES** gouty arthropathy, codes 274.00-274.03.

You will note a modified fifth-digit subclassification box in each of these sections. The box is a condensed version of the box located at the beginning of **Arthropathies and Related Disorders**.

Although the box lists fifth-digits to specify the sites, refer to the beginning of the chapter for more detailed information so you are sure your coding is accurate. Most conditions you will find in each of these categories are manifestations of underlying diseases. For this reason, you are directed to code the underlying disease first.
Rheumatoid arthritis, or RA, is a chronic systemic disease characterized by recurrent inflammation of the synovial joints and related structures. Onset may be abrupt, with simultaneous inflammation in multiple joints, or gradual, with progressive joint involvement. The most sensitive physical sign is the tenderness in nearly all of the inflamed joints. Symmetric involvement of small hand joints, feet, wrist, elbows and ankles is typical, but RA may occur in any joint. This condition occurs more often in women than men. The course is variable but often is chronic and progressive, and leads to deformities and disability. The treatment for RA includes medication, physical therapy and even surgery to relieve some of the symptoms.

Now read through the following SOAP note and determine the correct code for the diagnosis:

SUBJECTIVE
Patient states, “My hands hurt.” She rated the pain as 7 on a scale of 1-10, with 10 being the most severe pain.

OBJECTIVE
Observed swelling and inflammation in fingers and joints of both hands and wrists. Range of motion and strength decreased substantially. Paraffin bath given bilaterally for hands and wrists, with some improvement noted. Therapeutic activities performed for 15 minutes to improve ADLs. A 4 x 4 inch piece of dicem was given to patient to assist with opening jar lids, and a rocker knife was given to assist patient with cutting when preparing meals. She was instructed in the use of both items.

ASSESSMENT
Rheumatoid arthritis in hands and wrists bilaterally.

PLAN
Patient to return in 1 week for occupational therapy to reevaluate treatment plan and progress.

To code the diagnosis of rheumatoid arthritis, you begin, as always, in the Index to Diseases. Following the coding pathway of Arthritis, rheumatoid, you will identify a tentative code of 714.0. Now turn to the Tabular List to determine the highest level of specificity, where you will confirm that 714.0 Rheumatoid arthritis is the accurate code for the scenario.

Osteoarthritis, also known as degenerative joint disease, is a noninflammatory degenerative joint disease characterized by the repair of joint cartilage not keeping up with cartilage degeneration. This condition tends to occur in the weight-bearing joints, such as the knees and hips. The exact cause of osteoarthritis is unknown, but it is believed that metabolic, genetic, chemical and mechanical factors play a role, as well as the aging process.

Derangement is the disturbance of the regular order or arrangement. Category 717 includes codes for the internal derangement of the knee. This code group INCLUDES degeneration, rupture and old rupture or tear of the articular cartilage or meniscus of the knee, and EXCLUDES current injury, deformity and recurrent dislocations. Joint mice of the knee indicates the presence of small, calcified, loose bodies in the joint synovial area. To code this condition, use the coding pathway Joint, mice in the Index to Diseases. This pathway directs you to see Loose, body, joint, by site. This new coding pathway, Loose, body, joint, knee, provides the tentative code of 717.6. When you turn to the Tabular List to determine the highest level of specificity, you will confirm that 717.6 Internal derangement of knee, Loose body in knee is the accurate code for this condition.
Now read through the following SOAP note and determine the correct code for the diagnosis:

**SSSSS: Patient states, “My hands hurt.” She rated the pain as 7 on a scale of 1 to 10, with 10 being the most severe pain.**

**OOOOO: Observed swelling and inflammation in fingers and joints of both hands and wrists. Range of motion and strength decreased substantially. Paraffin bath given bilaterally for hands and wrists, with some improvement noted. Therapeutic activities performed for 15 minutes to improve ADL’s. A 4 x 4 inch piece of dicem was given to patient to assist with opening jar lids, and a rocker knife was given to assist patient with cutting when preparing meals. She was instructed in the use of both items.**

**AAAAA: Rheumatoid arthritis in hands and wrists bilaterally.**

**PPPPP: Patient to return in one week for occupational therapy to reevaluate treatment plan and progress.**

To code the diagnosis of rheumatoid arthritis, you begin, as always, in the Index to Diseases. Following the coding pathway of Arthritis, rheumatoid, you will identify a tentative code of 714.0. Now turn to the Tabular List to determine the highest level of specificity, where you will confirm that 714.0 Rheumatoid arthritis is the accurate code for the scenario.

**Osteoarthritis**, also known as **degenerative joint disease**, is a noninflammatory degenerative joint disease characterized by the repair of joint cartilage not keeping up with cartilage degeneration. This condition tends to occur in the weight-bearing joints, such as the knees and hips. The exact cause of osteoarthritis is unknown, but it is believed that metabolic, genetic, chemical, and mechanical factors play a role, as well as the aging process.

---

**Dorsopathies (720-724)**

**Dorsopathy** is a general term for diseases and disorders of the spine. Inflammation, stiffening, displacement and degeneration are a few of the conditions you will find within this section. This is a fairly straightforward section to code from, but understanding the anatomy of the spine will assist you with accurate coding.

The spine is called the **vertebral column** because it is composed of a stack of 33 vertebrae, which are divided into 5 distinct regions. There are 7 **cervical vertebrae**, numbered C1 though C7; 12 **thoracic vertebrae**, numbered T1 through T12; 5 **lumbar vertebrae**, numbered L1 through L5; 5 fused **sacral vertebrae**, numbered S1 though S5; and 4 fused **coccygeal, vertebrae** forming the coccyx.
**Intervertebral discs** form the major joint at each level of the spine. These discs cushion the vertebrae from the shock of weight-bearing movements by the rest of the body. The discs also allow the spine to bend. A disorder of the discs without a disorder of the spine is specified as “without myelopathy.” As the spine flexes and extends, the discs protect the vertebral bodies from injury. Injuries to the discs include displacement and degeneration. **Displacement**, or the lack of normal positioning, may also be referred to as herniation. When you locate Herniation in the *Index to Diseases*, you are directed to see also Hernia. The coding pathway Hernia, intervertebral cartilage or disc redirects you to see Displacement, intervertebral disc.

Let’s code hernia of the L4-L5 intervertebral disc. With your anatomy knowledge, you know that L4-L5 refers to the lumbar region. So let’s look up Hernia, lumbar in the *Index to Diseases*. This coding pathway provides the tentative code of 553.8. That code is in the range for the “Digestive System” chapter—that’s not right! Go back to the *Index to Diseases* and continue from the Hernia, lumbar pathway to the subterm intervertebral disc. This provides the tentative code of 722.10. You then turn to the *Tabular List* to determine the highest level of specificity. You can comfortably conclude that 722.10 Intervertebral disc disorder, Displacement of thoracic or lumbar intervertebral disc without myelopathy, Lumbar intervertebral disc without myelopathy is the accurate code.

**Rheumatism, Excluding the Back (725-729)**

*Rheumatism* is an indefinite term applied to various conditions marked by inflammation and degeneration or metabolic derangement of the connective tissue structures of the body. Its symptoms include pain, stiffness or limitation of movement. When rheumatism affects only the joints, it is called **arthritis**. This section does not include codes for conditions of the back because they are included in the previous section. It **INCLUDES** disorders of muscles, tendons and other attachments and of other soft tissues. You’ll find that most coding in this section is straightforward. Fourth and fifth digits are provided in the *Tabular List*. Be sure to review each tentative code to verify inclusions, exclusions and additional notes that will assist you.

Let’s go straight to the sample physician notes so you can practice coding the diagnosis. Work carefully but as quickly as you can, and then we’ll review the process to see how you did.

**SUBJECTIVE**
This 16-year-old male has experienced mild pain in the back of his lower heel that increases when he is playing basketball. The season just started, and he admits to being out of shape.

**OBJECTIVE**
Physical exam reveals swelling of the back of the leg. Palpation notes a hard knot of tissue.

**ASSESSMENT**
The patient suffers from Achilles tendinitis.

**PLAN**
An MRI is scheduled to determine the extent of the injury. He is to follow up in this office in 2 weeks to review the MRI results.

The diagnosis seems straightforward enough—let’s see if the code is also. Use the coding pathway of Tendinitis, Achilles. In the *Index to Diseases*, you find a tentative code of 726.71. Turn to the *Tabular List* to determine the highest level of specificity. You find code 726.71 Peripheral enthesopathies and allied syndromes, Enthesopathy of ankle and tarsus, Achilles bursitis or tendinitis is the correct code.
Osteopathies, Chondropathies, and Acquired Musculoskeletal Deformities (730-739)

The final section of the “Musculoskeletal System and Connective Tissue” chapter deals with osteopathies, chondropathies and acquired musculoskeletal deformities. Osteopathy is any disease of the bone, while chondropathy is any disease of the cartilage. Acquired musculoskeletal deformities are deformities not present at birth.

Code category 730 Osteomyelitis, petriostitis, and other infections involving bone EXCLUDES the jaw (526.4-526.5) and the petrous bone (383.2). You are directed to use an additional code if the organism causing the infection is identified. Again, the condensed version of the fifth-digit code subclassifications is provided. The list at the beginning of the chapter contains the definitions for these fifth digits.

Osteomyelitis is an inflammation of the bone tissue and marrow caused by a pus forming organism. Periostitis is an inflammation of the periosteum, or the thick, fibrous membrane that covers the entire surface of a bone. Acute osteomyelitis can be documented as acute or subacute, and with or without periostitis. Chronic osteomyelitis EXCLUDES aseptic necrosis of the bone (733.40-733.49). If osteitis or osteomyelitis is not otherwise stated, you will code the condition as unspecified.

Category 733 Other disorders of the bone and cartilage contains a broad spectrum of disorders. Osteoporosis and pathological fractures are two conditions that we will discuss. Be sure to read through the notes, inclusions and exclusions in the Tabular List when you are coding from this section.

Osteoporosis is a commonly occurring bone disease characterized by a reduction in bone mass. Senile osteoporosis accounts for most cases of this disease. It affects persons older than age 70, and is due to the natural aging process. When there is no apparent cause for the disease, it is termed idiopathic osteoporosis. Disuse osteoporosis is defined as localized or generalized bone loss that results from the reduction of mechanical stress on bones. In other words, this condition is caused by prolonged inactivity that results in loss of bone mass. This inactivity may be due to bed rest, paralysis or casting. Osteoporotic bones become thin and brittle, making them prone to fractures.

A fracture is a break or rupture in a bone. Traumatic fractures occur because of mechanical injury. We will discuss this type of fracture in a later lesson. Pathological fractures, or spontaneous fractures, occur without major external trauma. Pathological or spontaneous fractures are the result of the bone structure weakening by a pathological process, such as occurs with osteoporosis and neoplasms. Subcategory 733.1 Pathologic fractures EXCLUDES stress fracture, which you will code from codes 733.93 through 733.95, and traumatic fracture, which you will code from codes 800 through 829. Stress fractures are caused by unusual or repeated stress on a bone. Athletes frequently experience stress fractures.

As mentioned, acquired musculoskeletal deformities are those that are not genetic. Conditions that exist at birth, such as mental or physical traits, anomalies, malformations or diseases, and that might be either hereditary or the result of an influence during gestation up to the moment of birth, are termed congenital. We will discuss congenital anomalies in the next chapter, but it is important to understand the difference between the two to accurately code this section. You will note that each code category from 735 through 738 EXCLUDES a type of congenital condition. The acquired deformities you will be coding in this section include hammer toe (acquired), club hand (acquired), swan-neck deformity, bowleg (acquired), claw foot (acquired), scoliosis and deformity of the nose (acquired). You should be able to determine whether the condition is congenital or acquired by the documentation in the medical record.
We've covered quite a bit of information since your last Practice Exercise. Let's stop and give you a chance to review the material. Then you can complete the following coding exercises to see how well you understand the material in this section.

**Step 7: Practice Exercise 27-2**

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Arthralgia of the left shoulder  
   ICD-9-CM code:
2. Herniation of C4-C5  
   ICD-9-CM code:
3. Calcification of the cervical disc  
   ICD-9-CM code:
4. Lower back pain  
   ICD-9-CM code:
5. Bursitis of the right hip  
   ICD-9-CM code:
6. Acquired trigger finger  
   ICD-9-CM code:
7. Infective myositis  
   ICD-9-CM code:
8. Idiopathic osteoporosis  
   ICD-9-CM code:
Use the following information to complete the CMS-1500 that follows.

### 9. ICD-9-CM Coding/Billing Challenge

| FRONT RANGE FAMILY CARE | Greg Stephen, MD NPI: 0267679942 |
| 1800 Circle Court | Donald Milford, MD NPI: 0810998051 |
| Yourstown, CO 80000 | Douglas Smart, MD NPI: 0144878804 |
| (970) 555-3344 | Group NPI: 0881099885 |

#### Patient Information

| Name | Janet Scott |
| Date of Birth | November 11, 1985 |
| Address | HQ USAF SP PSC 5 |
| City | Ellsworth AFB |
| State | SD |
| ZIP | 57706 |
| Home Phone | 605-555-6330 |

#### Employment Information

| Name of Employer | Harrison Elementary School |
| Occupation | Administration |
| If Minor, Name of School | |

#### Insurance Information

| Name | TRICARE |
| ID# | 352005515 |
| Group# | |
| Address | PO Box 100502 |
| City | Florence |
| State | SC |
| ZIP | 29501-0502 |
| Primary Insured Name | James Scott |
| Relation to Patient | Spouse |
| DOB | 9/13/1985 |
| Employer | USAF |

Primary Insurance

| Name | TRICARE |
| ID# | 352005515 |
| Group# | |
| Address | PO Box 100502 |
| City | Florence |
| State | SC |
| ZIP | 29501-0502 |
| Primary Insured Name | James Scott |
| Relation to Patient | Spouse |
| DOB | 9/13/1985 |
| Employer | USAF |

Primary Insured Name: James Scott
Relation to Patient: Spouse
DOB: 9/13/1985
Employer: USAF
I authorize the release of any information including diagnosis and treatment. I authorize my insurance carrier to pay directly to the doctor any benefits otherwise payable to me.

Signature of patient (or parent of minor child)

**Janet Scott**

| Date of Service | 8/20/XX |
| Diagnosis | Procedure | Charge |
| | 99214 Office Visit, Est. Patient | $85.00 |

**Today's Charge:** $85.00

**Cash/Check:** $20.00

**Balance:** $65.00
Name: Janet Scott  
DOB: November 11, 1985  
Date of Service: August 20, 20XX

HISTORY OF PRESENT ILLNESS
The patient is a white female who presents for a checkup.

PAST HISTORY
Medications: Methotrexate 2.5 mg 5 weekly, Fosamax 70 mg weekly, folic acid daily, amitriptyline 15 mg daily, Synthroid 0.088 mg daily, calcium 2 in the morning and 2 at noon, multivitamin daily, baby aspirin daily and Colace 1-3 b.i.d.
Illnesses: Reactive airway disease; rheumatoid arthritis; graviga 4, para 5, with one set of twins, all vaginal deliveries; iron-deficiency anemia; osteoporosis; and hypothyroidism.
Operations: Recent surgery on her hands and feet.
ALLERGIES: NONE.
Social history: She is married. Denies tobacco, alcohol and drug use.
Family history: Unremarkable.

REVIEW OF SYSTEMS
HEENT, pulmonary, cardiovascular, GI, GU, musculoskeletal, neurologic, dermatologic, constitutional and psychiatric are all negative except for HPI.

PHYSICAL EXAMINATION
GENERAL: She is a well-developed, well-nourished white female in no acute distress.
HEENT: Grossly within normal limits.
NECK: Supple. No lymphadenopathy. No thyromegaly.
ABDOMEN: Positive bowel sounds, soft and nontender. No hepatosplenomegaly.
RECTAL: Normal sphincter tone. No stool present in the vault. No rectal masses palpated.
EXTREMITIES: No cyanosis, clubbing or edema. She does have obvious rheumatoid arthritis of her hands.
NEUROLOGIC: Grossly intact.

ASSESSMENT AND PLAN
1. Hypothyroidism. We will recheck TSH to make sure she is on the right amount of medication at this time, making adjustments as needed.
2. Rheumatoid arthritis. Continue her methotrexate, and she will follow up as needed.
3. Osteoporosis. It is time for her to have a repeat DEXA at this time, and that will be scheduled.
HEALTH INSURANCE CLAIM FORM

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. OTHER INSURED'S NAME</td>
<td>b. OTHER INSURED'S POLICY OR GROUP NUMBER</td>
</tr>
<tr>
<td>c. EMPLOYER'S NAME OR SCHOOL NAME</td>
<td>d. INSURANCE PLAN NAME OR PROGRAM NAME</td>
</tr>
<tr>
<td>2. HOSPITALIZATION DATES RELATED TO CURRENT SERVICES</td>
<td>3. PRIOR AUTHORIZATION NUMBER</td>
</tr>
<tr>
<td>4. SERVICE FACILITY LOCATION INFORMATION</td>
<td>5. BILLING PROVIDER INFO &amp; PH</td>
</tr>
</tbody>
</table>

**READ BACK OF FORM BEFORE COMPLETING & SIGNING THIS FORM.**

1. MEDICARE MEDICAID TRICARE
2. PATIENT'S NAME (Last Name, First Name, Middle Initial)
3. PATIENT'S BIRTH DATE
4. PATIENT'S SEX
5. PATIENT'S ADDRESS (No., Street)
6. PATIENT'S CITY STATE
7. PATIENT'S ZIP CODE
8. PATIENT'S RELATIONSHIP TO INSURED
9. PATIENT'S ADDRESS (No., Street)
10. PATIENT'S ZIP CODE
11. PATIENT'S OR AUTHORIZED PERSON'S SIGNATURE
12. PATIENT'S OR AUTHORIZED PERSON'S SIGNATURE
13. INSURED'S OR AUTHORIZED PERSON'S SIGNATURE
14. MEDICAID RESUBMISSION CODE
15. HOSPITALIZATION DATES RELATED TO CURRENT SERVICES
16. PRIOR AUTHORIZATION NUMBER
17. SERVICE FACILITY LOCATION INFORMATION
18. BILLING PROVIDER INFO & PH #
Step 8: Review Practice Exercise 27-2

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 9: Congenital Anomalies (740-759)

Chapter 14 of the Tabular List includes a variety of anomalies, and the conditions are not broken down into sections. We will discuss only some of the conditions included in this chapter. As you read through the material, remember that you should be able to determine by the documentation in the medical record whether the condition is congenital or acquired. Congenital anomalies are those conditions that exist at birth, such as abnormal mental or physical traits, and other anomalies, malformations or diseases. Such anomalies may be either hereditary or the result of an influence that occurs during gestation, up to the moment of birth.

**Spina bifida** is a herniation, or abnormal bulging, of the membranes that surround the spinal cord. This condition may cause an excess accumulation of spinal fluid within the ventricles, known as **hydrocephalus**. When you use code category 741, indicate the region of the unfused vertebral bone with the fifth-digit subclassification.

**Glaucoma** and **cataract** can be congenital anomalies of the eye. Congenital, newborn, or infantile glaucoma is an enlargement and hazing of the corneas. This condition **EXCLUDES** glaucoma of childhood (365.14) and traumatic glaucoma due to birth injury (767.8). The term congenital cataract is for common, usually bilateral opacities present at birth. This condition **EXCLUDES** infantile cataracts (366.00-366.09).

Let’s code a capsular cataract found in a newborn. First, locate the problem in the Index to Diseases. The problem, Cataract, is the main term. The condition is found in a newborn, meaning it is a congenital anomaly. The subterm congenital is next in the coding pathway, followed by capsular. Following this route, you find that the tentative code is 743.31. Then, turn to the Tabular List to determine the highest level of specificity, and you’ll confirm that code 743.31 Congenital anomalies of eye, Congenital cataract and lens anomalies, Capsular and subcapsular cataract is correct.

Some ears stick out more than normal, which can be referred to as bat ear. Although correcting this condition is not medically necessary, some people choose to do so because of self-esteem issues. To code this condition, simply locate Bat ear in the Index to Diseases and you find code 744.29. Determine the highest level of specificity in the Tabular List. This confirms code 744.29 Congenital anomalies of ear, face, and neck, Other specified anomalies of ear, Other is the accurate code.

In code group 745 Bulbus cordis anomalies and anomalies of cardiac septal closure, you will find conditions such as aortic and ventricular septal defects. A combination of cardiac defects pulmonary stenosis, interventricular septal defect, dextroposition of the aorta and right ventricular hypertrophy is termed **tetralogy of Fallot**. This condition **EXCLUDES** Fallot’s triad, which you would code as 746.09 Anomalies of pulmonary valve, Other. To code tetralogy of Fallot, use Fallot’s as the main term to locate in the Index to Diseases. Locating the subterm tetrad or tetralogy provides you with the tentative code of 745.2.
An alternative pathway would be *Tetralogy of Fallot* that also provides the tentative code of 745.2. Now turn to the *Tabular List* to determine the highest level of specificity. If you find **745.2 Bulbus cordis anomalies and anomalies of cardiac septal closure, Tetralogy of Fallot**, you have the correct code. Great job!

A **cleft palate** is a congenital fissure of the soft palate alone, or of both the soft palate and the hard palate. The cleft typically opens through the roof of the mouth into the nasal cavity, and extends anteriorly to the premaxilla, where it deviates to the right or left, following the line of fusion. A **cleft lip** is the separation of two sides of the lip. Conditions in category 749 are cleft palate, cleft lip and cleft palate with cleft lip. The conditions are further classified as *unilateral* or *bilateral*, and *complete* or *incomplete*. *Unilateral* refers to one side, while *bilateral* indicates that the cleft occurs on both sides. When the cleft involves a small portion of either the palate or the lip, it is termed *incomplete*. A complete separation of both the anterior bony hard palate and the posterior fleshy soft palate is termed *complete*.

The group of codes for congenital anomalies of the genital organs **EXCLUDES** syndromes associated with anomalies in the number and form of chromosomes (codes 758.0 through 758.9). Female organs affected by such anomalies include the ovaries, fallopian tubes, uterus, cervix, vagina and external female genitalia. Male organs of this category include the testicles and penis. **Pseudohermaphroditism** is the presence of gonads of one sex and external genitalia of the other sex.

Code category **754 Certain congenital musculoskeletal deformities** includes deformities that are *nonteratogenic* (not a product of congenital anomalies) but that are considered to be the result of intrauterine malposition and pressure. The sites affected by these conditions include the face, spine, hip, leg and feet. Code category **755 Other congenital anomalies of limbs** excludes those deformities that are classifiable to codes 754.0 through 754.8. Code group 755 is specific to the upper and lower limbs.

Now let’s code a deformed finger of a newborn. Again, the term *newborn* indicates this is a congenital deformity. In the *Index to Diseases*, use the coding pathway of *Deformity, finger, congenital*. Determine the highest level of specificity of the tentative code of **755.50** in the *Tabular List*. You find **755.50 Other congenital anomalies of limbs, Other anomalies of upper limb, including shoulder girdle, Unspecified anomaly of upper limb**. “Anomalies of upper limb” applies, because the finger is part of the upper limb. “Unspecified anomaly” applies, because the type of deformity is not noted. You have the correct code.

Code group **757 Congenital anomalies of the integument** includes anomalies of the skin, subcutaneous tissue, hair, nails and breast. The category **EXCLUDES** hemangioma (228.00 through 228.09) and pigmented nevus (216.0 through 216.9). Birthmarks are included in this category. A benign tumor of blood vessels due to malformed angioblastic tissue is termed a birthmark, strawberry nevus, port-wine stain or vascular hamartomas. **Albinism** is not included as a congenital skin condition because it is a disorder of the amino-acid metabolism.

Category **758 Chromosomal anomalies** includes syndromes associated with anomalies related to the number and form of chromosomes. You are to use additional codes for conditions associated with the chromosomal anomaly. **Down syndrome**, or Trisomy 21, is usually caused by an extra copy of the twenty-first chromosome. Characteristics of Down syndrome include a smaller-than-normal and abnormally shaped head, a flattened nose, protruding tongue and upwardly slanted eyes. The hands of individuals with Down syndrome are short and broad, and their fingers are short, as well. Their mental and social skills also are delayed. Although the severity of intellectual disabilities vary, it usually is moderate to severe in persons with Down syndrome. The average life span is shortened for people with this condition because of increased episodes of congenital heart disease.
The final code category of this chapter is 759 Other and unspecified congenital anomalies. This group of codes consists of absence of the spleen, adrenal gland or parathyroid gland; conjoined twins; and Marfan syndrome. Marfan syndrome is a connective-tissue multisystemic disorder. The disorder is characterized by skeletal changes and cardiovascular defects. Skeletal changes include having a tall, lanky body with long limbs and spider-like fingers. Curvature of the spine, or scoliosis, is common with Marfan syndrome, as well. Defects of the cardiovascular system might include enlargement of the base of the aorta, aortic regurgitation, mitral valve prolapse and dissecting aortic aneurysms. Since there is not just one treatment for this condition, the characteristics of Marfan syndrome should be addressed as needed.

The following is a cardiology consultation report for you to read through. Take your time and review the details so you have a good sense of the patient's condition and the diagnoses. Then, when you're ready, determine the correct diagnosis code or codes based on this report. Figure out the coding pathway(s), determine the tentative code(s) from the Index to Diseases, and then confirm the accuracy of your conclusions in the Tabular List. When you're done, compare the process you went through and the final code results with our summary that follows the report.

CARDIOLOGY CONSULTATION REPORT

REASON FOR REFERRAL
Severe chest pain.

HISTORY OF PRESENT ILLNESS
This is a 24-year-old white male with Marfan syndrome diagnosed 11 years ago and since then complains of intermittent severe chest pain. He was admitted yesterday after 10 hours of sharp, substernal chest pain, radiating to the neck, back, left arm, and left leg. No history of nausea, vomiting, shortness of breath, or diaphoresis. Over the past several years, the pain has been increasing in intensity. Exertion will almost always bring it on, although it also occurs at rest and with anxiety. He was started on Isordil, then diltiazem 1 year ago with initial improvement, now not effective. Inderal was started with uncertain efficacy. Over the past 5-6 years, he has 10-block dyspnea on exertion and chest pain. He was previously followed at another institution. His last hospitalization was 5 months ago. At that time, echocardiography showed no mitral regurgitation, positive mitral valve prolapse, and tricuspid valve prolapse with 4+ tricuspid regurgitation. The patient states he has had MVP and stated he had a global decrease in left ventricular function. The prior hospitalization had a negative aortogram to look for aortic dissection. A chest x-ray at that time was also negative. The patient has a history of staphylococcal endocarditis. Cardiac catheterization done at that time showed pulmonary artery stenosis.

PAST MEDICAL HISTORY
Medications: Diltiazem 30 mg t.i.d., Inderal 20 mg b.i.d., nitroglycerin, Motrin.
Illnesses: Marfan syndrome, chronic diarrhea, possible malabsorption syndrome for 1 year.
Operations: Exploratory laparotomy 2 years prior to the admission for appendectomy and removal of Meckel diverticulum.
ALLERGIES: THE PATIENT IS ALLERGIC TO PENICILLIN WITH HISTORY OF RASH.
Social history: No history of alcohol or tobacco use.
Family history: Incidences of sudden death in grandparents and mother. He has a brother with Marfan and a maternal grandmother with Crohn disease.

REVIEW OF SYSTEMS
Otherwise noncontributory.
PHYSICAL EXAMINATION
GENERAL: The patient is alert and comfortable and in no distress.
Temperature: 98.4°F.
SKIN: Nondiaphoretic.
HEENT: PERRLA. Normocephalic, atraumatic. Funduscopic examination normal. EOMs intact. Tympanic membranes clear.
NECK: Supple without JVD or carotid bruits.
CHEST: Heart: Regular rate and rhythm with distant heart tones. Normal S1, S2 without gallops or murmurs. There is a 1+ midsystolic click when patient is turned to 30 degrees.
ABDOMEN: There is a well-healed scar in the midline of the lower abdomen. Normal bowel sounds, nontender, no hepatosplenomegaly.
EXTREMITIES: No cyanosis, clubbing, or edema. Slender body habitus.

DATABASE
Chest x-ray: Slender cardiac silhouette. EKG has a sinus rhythm of 71/min with an incomplete right bundle branch block. This study is unchanged from a prior electrocardiogram of 1 month ago. Chest CT: Aneurysm present without evidence of dissection.

ASSESSMENT AND RECOMMENDATIONS
1. Recurrent severe chest pain attributed to mitral valve prolapse, increasing in frequency and intensity. History of global poor left ventricular function. Cannot rule out cardiomyopathy. Suggest that Inderal and Isordil be discontinued. Increase diltiazem to 60 mg t.i.d. and continue to increase diltiazem as symptoms necessitate.
2. The EKG suggests the presence of septal defect. Will schedule 2D Doppler echocardiogram with flow study.

This coding example has several parts, so we'll review them one part at a time.

1. You note in the assessment and plan for this patient that mitral valve prolapse is causing the chest pains, which is the reason for this encounter. So the first coding pathway is Prolapse, mitral valve. Following this pathway in the Index to Diseases, you identify a tentative code of 424.0. When you look up this code in the Tabular List, you find 424.0 Other diseases of endocardium, Mitral valve disorders to be accurate.

2. The next primary problem to address is the aortic aneurysm, for which you identify a coding pathway of Aneurysm, aorta. Following that pathway in the Index to Diseases, you find a tentative code of 441.9, which you then check to determine the highest level of specificity in the Tabular List. Based on the information you find there, you choose 441.9 Aortic aneurysm of unspecified site without mention of rupture as the correct code for this portion of the diagnosis.

3. Now you must find the correct code for the diagnosis of Marfan syndrome. Follow a coding pathway of Syndrome, Marfan's in the Index to Diseases, and you will come up with a tentative code of 759.82. You could also have found the same tentative code if you had chosen the alternative pathway of Marfan's syndrome. Once again, check the Tabular List to determine the highest level of specificity. You can comfortably conclude that code 759.82 Other and unspecified congenital anomalies, Other specified anomalies, Marfan syndrome is correct.

Finally, you are ready to assign diagnosis codes 424.0 441.9 759.82 to this consultation report.
We’re now about two-thirds of the way through this lesson, and it’s time to stop and review what you’ve read and practiced in this section to see how well you understand it. Complete the following Practice Exercise before you learn about the next chapter of the *Tabular List*.

**Step 10: Practice Exercise 27-3**

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Spina bifida of L3-L4
   ICD-9-CM code:

2. Simple hypoplasia of the right eye
   ICD-9-CM code:

3. Infant born with absence of external auditory canal
   ICD-9-CM code:

4. Roger’s disease
   ICD-9-CM code:

5. Fallot triad
   ICD-9-CM code:

6. Single umbilical artery of a newborn
   ICD-9-CM code:

7. Congenital honeycomb lung
   ICD-9-CM code:

8. Unilateral cheilopalatoschisis, incomplete
   ICD-9-CM code:

9. Didelphic uterus
   ICD-9-CM code:

10. Coding Challenge
    
    **CONSULTATION REPORT**
    
    **REASON FOR REFERRAL**
    Noted to have left low-set ear, left string-like thumb attached to metacarpal and left clubfoot following breech cesarean section.
    
    **HISTORY OF PRESENT ILLNESS**
    The patient is a 1-day-old male infant born to a gravida 1 mother by a crash cesarean section for double footling breech with multiple congenital anomalies.
PHYSICAL EXAMINATION
GENERAL: Weight: 2500 gm. Length: 45 cm. Head circumference: 34.5 cm.
NECK: Very short and posterior, hairline appears low.
ABDOMEN: No organomegaly. Liver on the right. Umbilical cord stump dry.
GENITALIA: Normal male with descended testes.
RECTAL: Patent.
EXTREMITIES: Left hand with hypoplastic thumb which is attached by a piece of skin. Left forearm has mesomelia but not camptomelia. Right hand with proximally placed thumb.
NEUROLOGIC: Good cry and muscle tone.

DATA BASE
X-rays reveal multiple cervical spine anomalies characterized by hypoplasia including hemiatrophy of T1, butterfly pattern of T3, and left rib anomalies. Chest film also shows evidence of congenital heart disease, patent ductus arteriosus, and possible ventricular septal defect. Chest x-ray and abdominal films show no evidence of situs inversus. Stomach bubble on the left and heart on the left, liver on the right.

ASSESSMENT
Multiple congenital anomalies. Congenital anomalies found in this infant so far are:
1. Dysplasia of the left auricle.
2. Multiple vertebral anomalies in the cervical and upper thoracic spine.
3. Left thumb hypoplasia.
4. Mesomelia (abnormally short) left forearm without camptomelia.
6. Ear anomalies and cervical spine anomalies are seen in Goldenhar syndrome (oculoauriculovertebral dysplasia). Vertebral anomalies and congenital heart disease are seen in VACTERL association. Both conditions are thought to occur as sporadic events during embryonic and fetal development. There is increased risk for other abnormalities such as renal and gastrointestinal malformations. Intellectual disabilities is not a constant feature but is increased in Goldenhar, especially in those with cerebral hemisphere involvement.

RECOMMENDATIONS
WCC. Intracranial sonography to rule out CNS malformation. Renal sonography, UGI and barium enema for evaluation of the urogenital and gastrointestinal tracts.

ICD-9-CM code:
Step 11: Review Practice Exercise 27-3

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 12: Certain Conditions Originating in the Perinatal Period (760-779)

Chapter 15 of the Tabular List contains codes that pertain to the mortality and morbidity of the fetus or newborn. Conditions that occur during, or pertaining to, the periods before, during or through the 28th day after birth are included in this range of codes. This chapter includes conditions that have their origin in the perinatal period, even if death or morbidity occurs later. You are directed to use an additional code or codes to further specify the conditions in this chapter. The chapter is divided into two sections: “Maternal Causes of Perinatal Morbidity and Mortality” and “Other Conditions Originating in the Perinatal Period.”

Maternal Causes of Perinatal Morbidity and Mortality (760-763)

This section consists of maternal conditions or complications that affect the fetus or newborn to cause morbidity (disease) or mortality (death) to the fetus or newborn. These conditions can be coded only if they are in fact affecting the fetus or newborn—not just because the conditions exist. You will use the codes in this group to code for the newborn record. These codes are used as a secondary diagnosis for the codes that indicate liveborn infants according to the type of birth. Remember when you coded the outcome of delivery in addition to the delivery code for the mother’s records? When coding the baby’s record, you will always assign a code from category V30 through V39, according to the type of birth. This code represents the principal diagnosis, and you can assign it only once, at the time of birth.

Category 760 Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy includes the listed maternal conditions only when they are specified as a cause of morbidity or mortality of the fetus or newborn. The code group excludes maternal endocrine and metabolic disorders that affect the fetus or newborn. You are directed to code these conditions from codes 775.0 through 775.9. Category 760 conditions include hypertensive disorders, infections, injuries and noxious influences.

Remember coding 642.33 for the diagnosis of pregnancy-induced hypertension, undelivered-fetus example in a previous lesson? We assigned that code to the mother’s records. If the baby’s health or life is affected by this condition during the perinatal period, you will assign code 760.0 to the newborn’s records. We will revisit this guideline in a later example.

When the fetus or newborn is affected by noxious substances transmitted via the placenta or breast milk, you will find the condition of the fetus or newborn in subcategory 760.7. This subcategory excludes anesthetic and analgesic drugs administered during labor and delivery (763.5), and drug withdrawal syndrome in a newborn (779.5). Drugs and alcohol ingested by a pregnant woman pass through the placenta to the fetus, and through the breast milk to the newborn, and so these substances affect the health and life of the fetus or newborn. Noxious substances include alcohol, narcotics, hallucinogenic agents, antibiotics and cocaine. Remember, these codes apply to the newborn’s records.

Complications of the placenta, cord and membranes can affect the fetus or newborn. When the documentation specifies a maternal condition as a cause of morbidity or mortality in the fetus or newborn, you will code the diagnosis under category 762.
Placenta previa is the term used when the placenta develops in the lower part of the uterus, covering the opening. Hemorrhaging in the last trimester is a common symptom of this condition. When placenta previa affects the health and life of the fetus, you will use code 762.0 for that condition.

The umbilical cord provides oxygen and nutrients to the fetus, and removes waste. A prolapsed cord occurs when the cord slips into the vagina after the membranes have ruptured and before the baby enters the birth canal. As the baby passes through the cervix and vagina during labor and delivery, he can put pressure on the cord, which reduces or cuts off the baby’s oxygen supply. Unless the baby is delivered quickly, the situation could result in a stillborn delivery. The risk of prolapsed cord is increased in breech presentations or premature deliveries.

Code category 763 Fetus or newborn affected by other complications of labor and delivery probably seems familiar to you because we discussed many of these complications earlier, when you studied conditions relating to pregnancy. These conditions include breech, forceps, vacuum extraction or cesarean deliveries. When these conditions are specified as a cause of mortality or morbidity in the fetus or newborn, you will assign the codes to the newborn's records.

Let's practice applying some of this information now. You'll code for a term newborn, born in the hospital and delivered by cesarean section because of an abnormal fetal heart rate during labor; the abnormal heart rate was caused by a prolapsed cord.

Once again, for the situation presented, we will go through several steps to determine all the required codes and the correct order of those codes.

1. Based on what you have learned, you know that you must include a code indicating liveborn infants according to the type of birth, so let's do that first. You choose a coding pathway of Newborn, single, born in hospital, with cesarean delivery or section and the tentative code of V30.01 is provided. Confirm that code with the Tabular List and you find V30.01 Single liveborn, Born in hospital, delivered by cesarean delivery is the accurate code.

2. Next, you will code for the abnormal fetal heart rate. The coding pathway of Abnormal, heart, rate, newborn, during labor for the Index to Diseases gives you a tentative code of 763.82. Then you turn to the Tabular List to review all the information there and determine the highest level of specificity. Code 763.82 Fetus or newborn affected by other complications of labor and delivery, Other specified complications of labor and delivery affecting fetus or newborn, Abnormality in fetal heart rate or rhythm during labor is the correct code for this portion of the description.

3. Then, you will code for the prolapsed cord documented in the notes. The problem is not the presence of the cord, but that it is prolapsed. In the Index to Diseases, locate the coding pathway of Prolapse, cord. You find a note that tells us to see Prolapse, umbilical cord. Following the new pathway, you will choose affecting fetus or newborn since you are coding for the newborn, not the delivery. Determine the highest level of specificity for code 762.4 in the Tabular List. You find that 762.4 Fetus or newborn affected by complications of placenta, cord and membranes, Prolapse cord is correct.

4. Finally, assign the codes to the newborn's records as V30.01 763.82 762.4.

How'd you do? If you have questions on this scenario, be sure to contact your instructor for guidance. Now let's move ahead where you can apply your expanding skills to the next section of Chapter 15.
Other Conditions Originating in the Perinatal Period (764-779)

As the title indicates, this section includes codes for other conditions that originate in the perinatal period. In the ICD-9-CM manual and for most medical purposes, birth weight is denoted in grams, for accuracy. Consequently, you will find a fifth-digit subclassification box in this section, with weight ranges in grams for birth weight. These subclassifications apply to code category 764 and to codes 765.0 through 765.1. Codes in category 764 Slow fetal growth and fetal malnutrition are often paired with codes in category 765 Disorders relating to short gestation and low birth weight. The 765 category includes the listed conditions without further specification as causes of mortality, morbidity, or additional care in the fetus or newborn. When you specify codes 765.0 or 765.1, you will apply an additional code to indicate the weeks of gestation. Long gestation is defined as more than 40 completed weeks to 42 completed weeks. High birth weight is usually defined as 4,500 grams or more.

Now let’s code a scenario that includes maternal causes of perinatal morbidity and mortality as well as causes from this section. Earlier, you learned about pregnancy-induced hypertension, undelivered and determined the code for the mother’s record to be 642.33. If the newborn was delivered at the hospital at 34 weeks gestation as the result of maternal hypertension, and the hypertension was documented in the maternal record, what ICD-9-CM codes would you assign to the newborn’s record? To help simplify the material, we’ll break it down into specific steps once again.

1. First, because pregnancy-induced hypertension is a condition at the time of birth, you will need to indicate the liveborn infant according to the type of birth. Using the coding pathway of Newborn, single, born in hospital the tentative code V30.00 is suggested. When you check the Tabular List for this code, you find V30.00 Single liveborn, Born in hospital, delivered without mention of cesarean delivery is the right code for this portion of the documentation.

2. Next, you know that the baby was premature because it was delivered at 34 weeks gestation. So, start with the coding pathway of Newborn as the main term, and find gestation as a subterm, with additional subterms under that for number of completed weeks. The tentative code for 33-34 completed weeks is 765.27. Now you go to the Tabular List to determine whether this is the accurate code, and you find 765.27 Disorders relating to short gestation and low birth weight, Weeks of gestation, 33‑34 completed weeks of gestation. So you can feel comfortable that this is the correct code.

3. Then, you need to know that a premature delivery is often associated with the newborn’s mortality and morbidity; in this case, the premature delivery is the result of the mother’s hypertension. Therefore, it’s logical to consider a coding pathway that begins with Hypertension as the main term. You locate this main term in the Hypertension table of the Index to Diseases, and then look for a reasonable subterm within the table. Try “complicating pregnancy,” since that’s a common description for problems related to pregnancy and childbirth, and see where that takes you. Under complicating pregnancy, childbirth, or the puerperium, you find fetus or newborn. The Malignant column is the only one to provide a code, so you have a tentative code of 760.0. Now, go to the Tabular List once more, and determine the highest level of specificity for this code to be sure you have the correct one. You find 760.0 Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy, Maternal hypertensive disorders and verify you have the correct code.

4. The final step is to make sure you have all the necessary codes, and that you have assigned them in the correct order. Based on the guidelines, you will assign codes V30.00 765.27 760.0. Good work!

Birth trauma, hypoxia, asphyxia and respiratory distress syndrome are some other conditions you will encounter in this section. Injury to the newborn during the delivery is a birth trauma. Injuries might be due to vacuum extraction or breech presentation. You will use code category 768 Intrauterine hypoxia and birth asphyxia only when the condition is associated with a newborn morbidity classified elsewhere. When the oxygen intake is insufficient, it causes fetal distress and possibly death.
Healthcare Documentation Program

Code category 771 Infections specific to the perinatal period [INCLUDES] infections acquired before or during birth, or via the umbilical cord or during the first 28 days after birth. These are infections such as congenital rubella, congenital herpes simplex, infection of the umbilical stump and thrush in a newborn. Other infection specific to the perinatal period (771.8) requires you to use an additional code to identify the organism for septicemia, UTI or bacteremia of a newborn.

Two prominent diseases that are included in code category 773 Hemolytic disease of fetus or newborn, due to isoimmunization are ABO isoimmunization and Rh isoimmunization. Blood types are composed of groups (A, B, AB, O) and types (Rh positive and Rh negative). In most cases, the blood of the mother and fetus are compatible. However, when there is incompatibility, the health and life of the fetus are at risk. For ABO isoimmunization, the mother’s blood group is O, and the fetus’ blood group is either A or B. The mother develops antibodies against this “foreign” blood, and these antibodies cross the placenta and destroy the infant’s red blood cells. The same destruction process occurs when the mom is Rh negative and the fetus is Rh positive and is known as Rh isoimmunization. The risks for the fetus include premature delivery (before 37 weeks gestation), severe anemia at birth and excessive bilirubin levels. Testing can be done to determine whether the Rh factor might be a problem in the pregnancy. If so, Rh-immune globulin will be given to the mother at 28 weeks into the pregnancy to help prevent the destruction of the red blood cells in the fetus.

Jaundice is a yellowing of the skin and the whites of the eyes caused by an accumulation of the yellow-brown bile pigment bilirubin in the blood. In certain subcategories for this disease, you will use an additional code to identify the cause. You will find that neonatal jaundice is a manifestation of an underlying disease, and so you should code the underlying disease first. In general, perinatal jaundice is a straightforward category to code. But if you have questions, remember that your instructors are just a phone call away!

Now it’s your turn to practice coding from this section. Read through the following physician's notes and then determine what code or codes you think are correct. As usual, we’ll review the process afterward to see how well you did.

SUBJECTIVE
A 3-day-old baby is brought in by mother, presenting with fever, jaundice, and is inconsolable. Poor weight gain is also noted. Mother has been typed as Rh negative, while baby is Rh positive.

OBJECTIVE
Physical exam: Febrile, yellowish eyes and skin noted.

ASSESSMENT
Baby is jaundiced due to Rh antibodies still in her system.

PLAN
Baby will be hospitalized for a transfusion to completely exchange the infant’s blood.

Based on the notes, you start with a coding pathway of Jaundice as the main term, which you locate in the Index to Diseases. Under the main term, you find the subterms fetus or newborn. Looking at the subterms here, you first find due to or associated with, Rh, antibodies provides the tentative code 773.0. You then turn to the Tabular List to determine the highest level of specificity. You find 773.0 Hemolytic disease of fetus or newborn, due to isoimmunization, Hemolytic disease due to Rh isoimmunization, is the correct code.
The next code group is **775 Endocrine and metabolic disturbances specific to the fetus and newborn**. This category **includes** transitory conditions caused by the infant’s response to maternal endocrine and metabolic factors, the infant’s removal from those conditions, or its adjustment to extrauterine existence. The syndrome of “infant of a diabetic mother” is an example of conditions in this category. This condition occurs when the maternal diabetes mellitus affects the fetus or newborn, usually in the form of hypoglycemia. **Neonatal diabetes** occurs when the infant’s sugar level is abnormally high and requires insulin to control it.

Code group **779 Other and ill-defined conditions originating in the perinatal period** includes convulsions, feeding problems, drug reactions and withdrawals and stillbirth not elsewhere classified. Feeding problems in a newborn consist of regurgitating, slow feeding and vomiting. An infant of a drug-dependent mother might suffer from drug withdrawal syndrome because the fetus was exposed to the drugs the mother has taken. A newborn experiencing drug withdrawal requires supportive care, such as swaddling, frequent small feedings and observation until he has stabilized from the drug withdrawal.

You’re on the home stretch of this lesson! This concludes the basic information you need to know as you begin coding medical diagnoses and conditions in Chapters 12 through 15 of the *Tabular List*. Before you review the lesson and complete the Quiz, take a few minutes to review Step 12 and then complete the Practice Exercise to reinforce what you have learned about codes in the 760 through 779 categories.

### Step 13: Practice Exercise 27-4

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Premature infant was delivered by cesarean at 35 weeks’ gestation due to fetal distress during the labor. Code the baby’s record.
   
   ICD-9-CM code: 
   ICD-9-CM code: 
   ICD-9-CM code: 

2. Vaginal delivery of a term newborn in a hospital noted to be large for gestational age at 4000 grams. Code the baby’s record.
   
   ICD-9-CM code: 
   ICD-9-CM code: 

   
   ICD-9-CM code: 
   ICD-9-CM code: 
   ICD-9-CM code: 

4. Term vaginal delivery of newborn in a hospital, small for gestational date, diagnosed with fetal alcohol syndrome. Code the baby’s record.
   
   ICD-9-CM code: 
   ICD-9-CM code: 
   ICD-9-CM code:
5. Newborn twins delivered in a hospital, premature at 32 weeks gestation, via c-section, one stillborn. Code the baby’s record.

ICD-9-CM code:

ICD-9-CM code:

Step 14: Review Practice Exercise 27-4

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 15: Lesson Summary

Once again, we've covered a lot of coding territory in this lesson. You've learned many new terms and even more instructions and details about how to code correctly for a wide range of diagnoses. You've studied conditions and diseases from the skin and subcutaneous tissue, to the musculoskeletal system and connective tissue, and to congenital anomalies and conditions in the perinatal period. Now that you've made it this far in your study of ICD-9-CM codes, your confidence should be increasing. You are very close to completing all of this new information about ICD-9-CM coding!

Take whatever time you need to review the content and Practice Exercises in this lesson, and then go ahead and complete the Quiz.

Step 16: Quiz 19

Once you’ve mastered the course content, locate this Quiz in your Online Course or your Assignment Pack. Read and follow the Quiz instructions carefully.
You’ve come a long way!
You’ve done very well with diagnostic coding.

Let’s continue to the next lesson!
You’ll study how to accurately code for symptoms.

No need to wait for your Quiz results to move on to the next lesson.
Lesson 28
ICD-9-CM Coding—
From Symptoms to Complications

Step 1: Learning Objectives for Lesson 28

When you have completed the instruction in this lesson, you will be trained to do the following:

- Define and describe condition symptoms, signs and ill-defined medical conditions.
- Explain the basic exclusions, inclusions and rules related to Chapters 16 and 17 of the ICD-9-CM manual’s Tabular List.
- Identify the diagnoses, outline the coding pathway and assign the final code for documented disorders and diseases.

Step 2: Lesson Preview

In this lesson, you will learn the details of coding conditions that are included in ICD-9-CM codes 780 through 999. In particular, the code groups in Chapters 16 and 17 of the Tabular List focus on symptoms, signs and ill-defined conditions; and on injury and poisoning.

As you’ve experienced in recent lessons, this lesson consists of varied and important details that you need to understand to become a proficient and accurate healthcare document specialist. Focus carefully as you work through the material, take plenty of breaks to refresh your mind and always remember that your instructor is available to assist you if you are uncertain about any of the information or how to find the correct codes. So let’s get started on these last chapters of the ICD-9-CM manual.

To help make sure you don’t get confused as you code the Practice Exercises and scenarios throughout the following ICD-9-CM coding lesson, it’s important to keep in mind that we are focusing for now only on ICD-9-CM codes—not CPT codes. You will see physician notes and documentation about specific procedures in some of the scenarios we use just because we want you to practice with authentic examples. But remember that you will code only the diagnoses during these lessons—you’ll have plenty of time and lots of practice combining procedural and diagnostic codes in later lessons, after you’ve become more familiar and comfortable with the ICD-9-CM codes.
Step 3: Symptoms, Signs, and Ill-Defined Conditions (780-799)

When no other diagnosis code quite fits the condition identified in the physician's documentation, you will turn to this chapter, Chapter 16 in the ICD-9-CM manual, which contains symptoms, signs and ill-defined conditions, to assist you. Review the notes provided at the beginning of the chapter to understand when it is appropriate to use these codes. As we introduce this portion of the manual to you, we will discuss both general symptoms and symptoms associated with specific body systems. We also will define and discuss nonspecific abnormal findings. Now let's take a look at the section that focuses on codes for symptoms of diseases and other conditions.

Symptoms (780-789)

A symptom is defined as any evidence of a disease or disorder (such as pain) that is discovered. When a positive diagnosis is not or cannot be provided, you will code the symptom or symptoms of the presenting problem. In Lesson 23, we discussed unconfirmed diagnoses, or uncertain conditions. When the physician's final diagnosis is an unconfirmed diagnosis, you will look to the symptoms for the correct code.

General symptoms include alteration of consciousness, hallucinations, syncope and collapse, convulsions, dizziness and giddiness, sleep disturbances, fever, malaise and fatigue, generalized hyperhidrosis and other general symptoms. Let's look at each of these conditions so that you have a good understanding of this category.

Consciousness is a state of being aware of self and surroundings and knowing what you are doing and intend to do. Alteration of this state can range from drowsiness to a state of unconsciousness, known as a coma, from which a patient cannot be awakened.

For various reasons, a person might hear, taste, smell or feel a stimulus that is not there. When one has a perception of an object or event when no such stimulus or situation is present, the condition is known as a hallucination. The hallucinations referenced in code group 780.1 EXCLUDES those associated with mental disorders, organic brain syndromes and visual hallucinations.

Syncope is a sudden, temporary suspension of consciousness due to a reduced blood flow to the brain. This condition is often referred to as a blackout or fainting. Code 780.2 EXCLUDES syncope related to the carotid sinus and the heart and to neurocirculatory asthenia, orthostatic hypotension and shock.

Sudden, involuntary contractions of the muscles are termed convulsions. Code group 780.3 for convulsions EXCLUDES epileptic convulsions and convulsions in newborns. Febrile convulsions, or seizures, code 780.31, are those associated with high fever and that occur in infants and children. Other convulsions, under code 780.39, include seizures, fits and convulsive disorders not otherwise specified. To code a febrile seizure, two coding pathways will provide the same tentative code. Febrile, seizure, or Seizure, febrile each provides 780.31 as the tentative code. When you then turn to the Tabular List to determine the highest level of specificity, you will confirm that code 780.31 General symptoms, Convulsions, Febrile convulsions (simple), unspecified is the accurate code.

A sensation of unsteadiness with a feeling of movement might be called dizziness, giddiness, light-headedness or vertigo not otherwise specified. The experience might be a whirling sensation in the head, with a feeling of falling. This subcategory, 780.4, EXCLUDES Meniere's disease and other specified vertiginous syndromes.
Sleep disturbances consist of insomnia, sleep apnea, hypersomnia and other dysfunctions associated with sleep stages or arousal from sleep. Insomnia is the inability to sleep during the period when sleep should normally occur. Sleep apnea is the periodic absence of spontaneous breathing while sleeping. Hypersomnia occurs when a person has excessively long sleep cycles, but is still tired and requires naps. These sleep disturbances can also be found in conjunction with other disorders. For example, let’s code insomnia with sleep apnea. Turn in the Index to Diseases to the main term Insomnia. You will locate a code for insomnia alone, but look to the subterm with sleep apnea, unspecified and you will see the tentative code of 780.51. Now turn to the Tabular List to determine the highest level of specificity. The code 780.51 General symptoms, Sleep disturbances, Insomnia with sleep apnea, unspecified is correct for the diagnosis.

When the body temperature is elevated above normal, the condition is called a fever or pyrexia. When the cause of the fever is unknown or not otherwise specified, you will use code 780.60.

Malaise is a vague feeling of physical discomfort or lack of good health. Fatigue results from overwork or lack of sleep, resulting in weariness, irritability and boredom. A persistent fatigue, with symptoms of weak muscles, sore throat, tender lymph nodes, headaches, depression and mild fever is known as chronic fatigue syndrome. There is no known cause for this condition, and treatment is focused on the symptoms. To code chronic fatigue syndrome, locate the main term Syndrome in the Index to Diseases. Using fatigue, chronic as the subterms, you will find the tentative code of 780.71. Then turn to the Tabular List to determine the highest level of specificity. Based on the information there, you will confirm code 780.71 General symptoms, Malaise and fatigue, Chronic fatigue syndrome as accurate.

Hyperhidrosis is excessive sweating. The sweat appears as droplets on the skin. Code 780.8 EXCLUDES focal hyperhidrosis and Frey’s syndrome. Let’s say that in the dictation, instead of the medical term hyperhidrosis, just “excessive sweating” is provided, and you are to code that condition. Again, two coding pathways will lead you to the same code. Excessive, sweating or Sweat, excessive each direct you to see also Hyperhidrosis and the tentative code of 780.8 is provided. Once you determine the highest level of specificity in the Tabular List, you will assign 780.8 General symptoms, Generalized hyperhidrosis as the correct code.

Other general symptoms in code group 780.9 EXCLUDES hypothermia that is due to anesthesia, accidental or of newborns. Code group 780.9 also EXCLUDES memory disturbances as part of a pattern of a mental disorder. This subcategory includes fussy infants, excessive crying of infants, memory loss, the premature feeling of being full and generalized pain.

Now it’s your turn to practice coding this scenario of a patient who was treated in the emergency department.

SUBJECTIVE
Altered transient confusion and general weakness without tremors or involuntary movement.
Gait normal.

OBJECTIVE
Appearance and affect are appropriate. Level of consciousness normal. Speech grossly intact. Oriented to time, place, person and purpose. Remote and recent memory intact.
Cranial nerves:
1: Sense of smell intact.
3, 4 and 6: Pupil size normal. PERRLA. Extraocular movements/muscles intact.
5: Facial sensation intact. Masseter muscle strength normal.
7: Facial symmetry and muscle strength normal.
8: Hearing acuity is normal bilaterally. Normal Weber test, does not determine lateralized sound. Air and bone conductivity intact.
9, 10: Palate elevates in the midline. Gag reflex is normal. Uvula is midline.
11: Trapezius and sternocleidomastoid strength 5/5.
12: No tongue fasciculations, deviation or weakness.
Sensory examination: Pinprick, position and vibratory sensation normal.
Meningeal examination: Neck supple. No Brudzinski or Kernig signs present.
Motor function: Motor strength and tone decreased in the involved extremities. No tremor or involuntary movements or fasciculations are seen. Gait is normal. No muscle atrophy. Cerebellar testing: Finger-to-nose and heel-to-shin testing normal. RAM normal. No intention tremor, nystagmus. Biceps, triceps, patellar and Achilles tendon reflexes are 2+ and equal bilaterally. Babinski reflex is negative.

**ASSESSMENT**
The findings are most likely consistent with transient ischemic attack. Cannot exclude meningitis, multiple sclerosis, peripheral neuropathy, arteriovenous malformation, Takayasu disease, subclavian steal syndrome, neurosyphilis or focal seizures.

**PLAN**
Emergency CT scan and spinal tap with cell count, VDRL and culture.

In coding this outpatient scenario, you cannot code the TIA because it is unconfirmed. The terms “most likely” and “consistent with” indicate that the physician is not certain of the TIA diagnosis. The physician lists many other possible causes but does not provide a definite diagnosis. In this situation, you should then look at the examination section to see whether the physician confirms a diagnosis area. However, the exam does not offer a definite diagnosis. Next, look to the presenting symptoms that brought the patient in for care. The patient complains of altered transient confusion and general weakness. Based on all this information, you will first code the transient confusion by turning to *Alteration, altered* in the *Index to Diseases*.

The subterms awareness, transient, or consciousness, transient each provide a tentative code of 780.02 for this condition. Next, turn to the *Tabular List* to determine the highest level of specificity. Now you will code the general weakness. The coding pathway Weak, weakness (generalized) provides 780.79 as the tentative code. Determine the highest level of specificity and the accuracy of this code in the *Tabular List*. Finally, for this scenario, you will assign code 780.02 *General symptoms, Alteration of consciousness, Transient alteration of awareness* and code 780.79 *General symptoms, Malaise and fatigue, Other malaise and fatigue* as the accurate codes based on these notes.

Now we're ready to discuss symptoms that involve specific body systems. The diagnoses that cover these symptoms and conditions include codes 781 through 789. As in previous lessons, we will highlight some of the codes, but you should read the category carefully whenever you are coding. There are many inclusions, exclusions and additional notes to be aware of with the symptoms and conditions included when coding in these codes. As always, if you have questions or concerns about the information provided, be sure to call your instructor for assistance.
Symptoms Involving Nervous and Musculoskeletal Systems (781)

This code category **EXCLUDES** depression, specific disorders relating to the back, hearing, joint, limb, neck and vision, as well as pain in a limb. You will find codes for symptoms such as disturbances of the sensations of smell and taste, clubbing of the fingers and facial weakness in this category. **Anosmia** is the loss of the sense of smell usually due to intranasal or neurologic diseases. A distortion of the sense of taste, or bad taste in the mouth, is termed **parageusia**. A distortion of the sense of smell, especially the smelling of odors that do not exist, is called **parosmia**. You will assign code 781.1 for these three sensory disturbances.

Thickening and broadening of the tips of the fingers with increased curving of the nails is termed **clubbing** of the fingers. You will often see clubbing of fingers listed as a symptom of another disease or disorder. If the disease is unconfirmed, you will code clubbing of fingers as the symptom, which is code 781.5.

Code 781.94 for facial weakness, or facial droop, **EXCLUDES** facial weakness that is due to the late effect of cerebrovascular accidents (438.83). Facial weakness might be a symptom of a number of conditions, including Bell’s palsy, Lyme disease, Myasthenia Gravis, Primary Lateral Sclerosis and TIA.

Symptoms Involving the Skin and Other Integumentary Tissue (782)

Symptoms involving skin and other integumentary tissue, found in code category 782, **EXCLUDES** symptoms that relate to the breast. This category consists of a variety of skin conditions, from rash to excessive blushing. A **rash**, or **exanthem**, is a general term for a skin eruption. **Edema** is an excessive amount of watery fluid in cells, tissues or serous cavities. The edema included in this code group does not include ascites, fluid retention, hydrothorax or nutritional edema. You learned about jaundice in a newborn in a previous lesson. When jaundice other than that of a newborn occurs, you will code 782.4 for the condition. Finally, **pallor** or excessive paleness (782.61) and **flushing** or excessive blushing (782.62) are also included in this code category.

Now let’s try coding a symptom that involves the skin.

SUBJECTIVE
A 5-year-old female presenting with a rash on her arm and legs and complaining of itching skin.

OBJECTIVE
Examination of skin is inconsistent with chickenpox.

ASSESSMENT
Rash.

PLAN
Patient is to treat the rash with hydrocortisone as needed for the itching.

The physician does not provide a definite diagnosis for the condition, so you will code for the rash. To do so, first locate **Rash** in the *Index to Diseases*, where you will see code 782.1 indicated as the tentative code. Then turn to the *Tabular List* to determine the highest level of specificity. Based on what you find there, you will assign 782.1 **Symptoms involving skin and other integumentary tissue, Rash and other nonspecific skin eruptions** as the accurate code for this scenario.
Symptoms Concerning Nutrition, Metabolism, and Development (783)

Symptoms that concern nutrition, metabolism and development include anorexia, abnormal gain or loss of weight and failure to thrive in children or adults. Anorexia is usually a temporary loss of appetite due to an emotional upset or illness with a fever. This condition excludes anorexia nervosa (307.1) and loss of appetite of nonorganic origin (307.59). Abnormal weight gain excludes excessive weight gain in pregnancy (646.1) and obesity (278.00) or morbid obesity (278.01). When an acute or chronic illness interferes with nutritional intake, absorption, metabolism, excretion and energy requirements, the condition is known as organic failure to thrive. This condition is not a symptom of neglect or abuse. Failure to thrive is categorized separately for childhood development (783.41) and for adults (783.7).

Symptoms Involving Head and Neck (784)

Symptoms that involve the head and neck, included within code category 784, range from headache and throat pain to nosebleeds. Subcategory 784.0 includes headache, facial pain and pain in the head not otherwise specified. This group of codes excludes atypical face pain, migraines and tension headaches. Code 784.1 Throat pain excludes dysphagia (difficulty swallowing), neck pain and a sore throat. The correct code for a hemorrhage from the nose, epistaxis, or simply a nosebleed, is 784.7.

Symptoms Involving the Cardiovascular System (785)

Code category 785 contains codes for symptoms that involve the cardiovascular system. Conditions included in this category include tachycardia, palpitations and septic shock. Tachycardia is a rapid beating of the heart, conventionally applied to heart rates greater than 100 beats per minute. This code group excludes neonatal tachycardia (779.82) and paroxysmal tachycardia (427.0-427.2). Awareness of one's own heartbeat, whether it appears unusually rapid or irregular is called palpitations.

Septic shock is a serious, abnormal condition that usually affects the very old or the very young. Septic shock occurs when an overwhelming infection of bacteria causes a release of toxins, which results in low blood pressure and low blood flow. Septic shock can occur only when severe sepsis is present. Therefore, if septic shock is documented, it is necessary to code first the initiating systemic infection or trauma, and then code 995.92 (severe sepsis), followed by code 785.52 Septic shock. Now let's code this condition from the following scenario.

SUBJECTIVE
An 82-year-old male arrives in the emergency department by ambulance, complaining of chills and a fever for the last week. His wife notes he has had shortness of breath, dizziness and confusion during this time as well. He has had decreased urine output for the past 2 days.

OBJECTIVE
A comprehensive physical exam is performed. Extremities are cool to the touch. Palpitations noted. Blood gas reveals low oxygen saturation and respiratory alkalosis. Blood tests confirm kidney failure. Blood cultures, EKG and chest x-ray are pending.

ASSESSMENT
Patient has septic shock due to a massive infection, with evidence of acute kidney failure.

PLAN
Patient is admitted to ICU by his primary care provider.
Based on the dictation, you will code the acute renal failure and the septic shock. First, you will locate the code for the diagnosis of the acute kidney failure because it is causing the systemic infection. Using the coding pathway Failure, kidney you are directed to see Failure, renal. The new pathway Failure, renal, acute provides the tentative code 584.9. Then, locate the coding pathway Shock, septic in the Index to Diseases. Turn to the Tabular List to determine the highest level of specificity for code 785.52. The notes you will find under code 785.52 direct you to code first the systemic inflammatory response syndrome due to infectious process with organ dysfunction (995.92). The code you need is provided in the notes, and you will assign code 995.92. Finally, assign the diagnostic codes in the correct order: the systemic infection, the systemic inflammatory response syndrome and the septic shock. You will assign 584.9 Acute renal failure, unspecified, 995.92 Systemic inflammatory response syndrome (SIRS), Severe sepsis and 785.52 Shock without mention of trauma, Septic shock to this emergency department visit.

**Symptoms Involving Respiratory System and Other Chest Symptoms (786)**

Symptoms that involve the respiratory system and other chest symptoms include apnea, shortness of breath, wheezing, cough and chest pain. We discussed apnea before as a general symptom of sleep disturbances. Apnea is a temporary stopping of breathing. When this condition is not associated with the sleep process, you will use code 786.03 for it. Shortness of breath, or SOB, has been a symptom of many of the scenarios we have presented in the ICD-9-CM lessons. When this inability to take in sufficient oxygen has no diagnosed cause, you will assign code 786.05 as the symptom that involves the respiratory system. Wheezing is a symptom that EXCLUDES asthma (493.00-493.92). To wheeze is to breathe with a high-pitched or whistle-like sound caused by the narrowing of airways. This condition may be due to asthma, croup, emphysema, hay fever, edema or pleural effusion. As with the other symptoms in this chapter, if the disease is undiagnosed, you will code wheezing instead. A cough (code group 786.2) is another common symptom of many diseases. This code subcategory EXCLUDES psychogenic and smokers’ cough, as well as a cough with hemorrhage.

Chest pain consists of several subclassifications to further explain the type of chest pain. 786.50 Chest pain, unspecified is a common code when further classification is not noted. Precordial pain, code 786.51, is chest pain over the heart and the lower thorax. The location, or “precordial,” must be documented to use this specific code. You will code pleurodynia, pleuritic and anterior chest wall pain with code 786.52 Painful respiration. This condition EXCLUDES epidemic pleurodynia (074.1). Code 786.59 Other refers to discomfort, pressure and tightness in the chest. This code group EXCLUDES pain in the breast, for which you are directed to use code 611.71 instead. Always keep in mind that proper use of the Index to Diseases will assist you in determining the correct code for the documented circumstance.

**Symptoms Involving Digestive System (787)**

Code category 787 consists of symptoms that involve the digestive system, which include symptoms such as nausea and vomiting, dysphagia, gas and diarrhea. Codes in the nausea and vomiting (also referred to as emesis) code group, list several EXCLUDES that you should take note of when you code from this section. These symptoms have subclassifications to fully describe the condition. You might code nausea with vomiting, nausea alone or vomiting alone. Dysphagia is the medical term to describe difficulty in swallowing. You will use code 787.2 for this condition, with the fifth digit identifying the phase of the dysphagia.
**Symptoms Involving Urinary System (788)**

Symptoms that involve the urinary system, which you will find in code category 788, include codes for *dysuria*, *urinary incontinence* and *urgency of urination*. Codes in this category **EXCLUDES** hematuria (599.70-599.72), nonspecific findings on examination of the urine (791.0-791.9), small kidney of unknown cause (589.0-589.9), uremia NOS (586) and urinary obstruction (599.60, 599.69). *Dysuria* is difficult or painful urination, which often indicates a UTI (urinary tract infection). *Urinary incontinence* is the inability to control the passage of urine from the bladder. This incontinence can range from post-void discharge to continuous, involuntary urine seepage. For conditions in this code group, you are directed, if applicable, to code first any causal conditions, such as congenital ureterocele (753.23), genital prolapse (618.00-618.9) or hyperplasia of prostate (600.0-600.9). Code 788.32 **Stress incontinence, male** **EXCLUDES** stress incontinence relating to females, for which you will use code 625.6. Note that **urge incontinence**, with a code of 788.31, is the inability to control urination upon the urge to urinate, while **urgency of urination**, with a code of 788.63, consists of the urge to urinate without the lack of control.

**Other Symptoms Involving Abdomen and Pelvis (789)**

Other symptoms involving the abdomen and pelvis, in code category 789, **EXCLUDES** symptoms that are referable to the genital organs. A fifth-digit subclassification applies to codes 789.0, 789.3, 789.4 and 789.6. The fifth digit specifies the abdominal site of the pain, swelling, mass, lump, rigidity or tenderness.

The following fifth-digit subclassification is to be used for codes 789.0, 789.3, 789.4, 789.6:

- 0 unspecified site
- 1 right upper quadrant
- 2 left upper quadrant
- 3 right lower quadrant
- 4 left lower quadrant
- 5 perimbilic
- 6 epigastric
- 7 generalized
- 9 other specified site

Multiple sites

**Figure 28-1: Four abdominal quadrants**
When you are coding symptoms that fit within this code group, it is important to know the acronyms that might be used to identify one of the four main quadrants.

RUQ   Right Upper Quadrant
LUQ   Left Upper Quadrant
RLQ   Right Lower Quadrant
LLQ   Left Lower Quadrant

Are you ready for more coding practice? Great! Look carefully at the diagnostic radiology report and see how quickly and accurately you can code the diagnosis.

CT ABDOMINAL SCAN WITH CONTRAST

CLINICAL HISTORY
RLQ abdominal pain.

TECHNIQUE
Spiral abdominopelvic CT with oral and intravenous contrast material.

FINDINGS
There is mild thickening of the wall of the terminal ileum. There is an increased number of normal sized mesenteric lymph nodes in the right lower quadrant of the abdomen. The appendix is visualized and is unremarkable. There is a trace amount of free fluid in the pelvis. No renal, hepatic, splenic, or pancreatic abnormalities are seen. Renal uptake of contrast material is prompt and symmetric. There is no evidence of hydronephrosis. The bladder is unremarkable.

IMPRESSION
Constellation of findings consistent with ileitis, which may be due to an infectious process or inflammatory bowel disease. No CT evidence of appendicitis.

Let’s go over the details of this example together now. The impression notes the findings are consistent with ileitis. However, consistent with indicates an unconfirmed diagnosis. You’ll code the symptom documented which is the abdominal pain. As you review the documentation, you note that the abdominal pain is located in the right lower quadrant, and the findings verify that location, as well. First, turn in the Index to Diseases to Pain, abdominal, and you find the tentative code of 789.0. Now, use the Tabular List to determine the highest level of specificity of this code. To specify the right lower quadrant, you’ll apply 3 as the final (fifth) digit. You assigned 789.03 Abdominal pain, right lower quadrant for this diagnostic radiology report.

Did you get the same result? Congratulations! This completes our review of the first section and code groups of Chapter 16. Let’s move on to the next section!
Nonspecific Abnormal Findings (790-796)

This section of Chapter 16 of the *ICD-9-CM* manual includes codes for nonspecific abnormal findings based upon the examination of blood, urine and other body substances; upon the radiological and other examination of body structure; and upon function, immunological findings and nonspecific abnormal findings. You will use these codes when the notes indicate that lab, x-ray, pathology and other diagnostic studies reveal abnormal findings, and the physician documents the clinical significance of these findings. It is also used when no definite diagnosis can be made, and the documentation indicates that additional work up is needed.

For example, let’s say a woman has a routine mammogram. The radiologist reviews the results, notes abnormal mammogram and requests that the patient be contacted to have a second mammogram. To code for the radiologist, you will use the coding pathway *Abnormal, mammogram* to locate the tentative code of 793.80. Then, turning to the *Tabular List*, you will confirm that 793.80 *Abnormal mammogram, unspecified* is the accurate code.

We’re moving right along with the material in this lesson—only one more section to complete our introduction to the basic codes in Chapter 16 of the *Tabular List*!

Ill-Defined and Unknown Causes of Morbidity and Mortality (797-799)

The final section in this chapter contains codes for conditions that pertain to ill-defined and unknown causes of morbidity and mortality. These conditions include senility, sudden death with an unknown cause and other ill-defined and unknown causes of morbidity and mortality. In code category 797, “Senility without mention of psychosis” is also known as *old age*. This category *EXCLUDES* senile psychoses (290.0-290.9). Some examples of sudden death with cause unknown are sudden infant death syndrome (SIDS), instantaneous death, death without signs of disease and unattended death. Other ill-defined and unknown causes of disease conditions of a fatal outcome are asphyxia, respiratory arrest and wasting disease.

Now it’s time to test your skills in coding symptoms, signs and ill-defined conditions with a Practice Exercise.
Step 4: Practice Exercise 28-1

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Persistent vegetative state  
   ICD-9-CM code:

2. Hypersomnia with sleep apnea  
   ICD-9-CM code:

3. Pyrexia of unknown origin  
   ICD-9-CM code:

4. Lethargy  
   ICD-9-CM code:

5. Transient monoplegia  
   ICD-9-CM code:

6. Numbness in hands  
   ICD-9-CM code:

7. Chest discomfort  
   ICD-9-CM code:

8. Elevated blood-pressure reading  
   ICD-9-CM code:

9. Abnormal pap smear of the cervix  
   ICD-9-CM code:
Use the following information to complete the CMS-1500 that follows.

10. ICD-9-CM Coding/Billing Challenge

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Date of Birth</th>
<th>Sex</th>
<th>Marital Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinton Fangman, MD</td>
<td>1200 Carol Lane</td>
<td>11-26-60</td>
<td>female</td>
<td>married</td>
</tr>
<tr>
<td>Carolyn Hooper, MD</td>
<td>Yourtown, CO 80000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scott Ludwig, MD</td>
<td>(970) 555-1010</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Patient Information**

- **Name**: Sally Tucker
- **Address**: 1801 Peterson Court
- **City**: Springtown
- **State**: CO
- **ZIP**: 80002
- **Home Phone**: (970) 555-3255

**Employment Information**

- **Name of Employer**: Allied Professions
- **Occupation**:
- **If Minor, Name of School**: 

**Insurance Information**

<table>
<thead>
<tr>
<th>Primary Insurance</th>
<th>Secondary Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong>: Blue Cross of Iowa</td>
<td><strong>Name</strong>: Mutual Life</td>
</tr>
<tr>
<td><strong>ID#</strong>: 321 00 1010</td>
<td><strong>ID#</strong>: 402 00 4679</td>
</tr>
<tr>
<td><strong>Group#</strong>: BA1503</td>
<td><strong>Group#</strong>: LA4832</td>
</tr>
<tr>
<td><strong>Address</strong>: PO Box 1677</td>
<td><strong>Address</strong>: PO Box 911</td>
</tr>
<tr>
<td><strong>City</strong>: Sioux City</td>
<td><strong>City</strong>: Denver</td>
</tr>
<tr>
<td><strong>State</strong>: IA ZIP 51102</td>
<td><strong>State</strong>: CO ZIP 80111</td>
</tr>
<tr>
<td><strong>Primary Insured Name</strong>: Sally</td>
<td><strong>Secondary Insured Name</strong>: Gregory Tucker</td>
</tr>
<tr>
<td><strong>DOB</strong>: 11-26-60</td>
<td><strong>DOB</strong>: 9-2-61</td>
</tr>
<tr>
<td><strong>Relation to Patient</strong>: self</td>
<td><strong>Relation to Patient</strong>: spouse</td>
</tr>
<tr>
<td><strong>Employer</strong>: Allied Professions</td>
<td><strong>Employer</strong>: Lakeside Auto</td>
</tr>
</tbody>
</table>

I authorize the release of any information including diagnosis and treatment. I authorize my insurance carrier to pay directly to the doctor any benefits otherwise payable to me.

---

**Signature of patient (or parent of minor child)**: Sally Tucker

**Physician signature**: Scott Ludwig, MD

<table>
<thead>
<tr>
<th>Date of Service</th>
<th>Diagnosis</th>
<th>Procedure</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/6/XX</td>
<td>99214 Office Visit, Est. Patient</td>
<td>$85.00</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Today’s Charge</th>
<th>Cash.Check</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$85.00</td>
<td>$10.00</td>
<td>$75.00</td>
</tr>
</tbody>
</table>
Name: Sally Tucker  
DOB: November 26, 1960  
Date of Service: June 6, 20XX

**SUBJECTIVE**  
Patient complains of pleuritic left chest pain and a low-grade fever.

**OBJECTIVE**  
Temperature: 101 °F. There are rales and decreased breath sounds in both bases with auscultation predominately in the left base. Percussion of the left lateral aspect of the thorax demonstrates an area of consolidation at the midaxillary line that extends from the precordium. There is a pleural rub in the same area.

**ASSESSMENT**  
Suspected postoperative basilar atelectasis. Associated aspiration pneumonia cannot be excluded at the present time. Due to this being the 2nd postoperative day, pulmonary emboli cannot be ruled out.

**PLAN**  
Chest film to look for consolidative collapse of the lingula and lower lobes. Encourage deep breathing and frequent use of incentive spirometer. Arterial blood gasses. Consultation with pulmonary medicine.
Step 5: Review Practice Exercise 28-1

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Chapter 17 of the ICD-9-CM manual is one of the largest chapters of codes, and it contains a wide variety of conditions. We will divide this chapter into two sections for our discussion to assist you with what might otherwise seem like an overwhelming amount of information. Remember, you do not need to memorize the information because you will have your ICD-9-CM manual and program materials to refer to whenever you are coding. We will discuss the inclusions, exclusions and additional notes in the Tabular List, as usual, and we will refer you to the ICD-9-CM manual’s Coding Guidelines section located in the front of the book. As you will remember from earlier lessons, the Coding Guidelines provide supplementary information to assist you in determining the accurate codes for a number of conditions. In addition, your instructors are a telephone call away to support you as you continue your studies.

Before we dive into the contents of this chapter, let’s look to see what assistance the Tabular List includes for coding from this chapter. You will note under the heading for Chapter 17 that you are to use an additional code for retained foreign body, if applicable, and you are to use E codes to identify the cause and intent of the injury or poisoning (E800-E999). E codes classify environmental events, circumstances and conditions as the cause of injury, poisoning and other adverse effects. You will use E codes in conjunction with poisonings, and we will return to this topic of using E codes to identify the cause and intent of the injury later. So for right now, don’t worry about including the E codes for injuries just yet, but rather focus your attention on coding the injury itself.

The Tabular List contains notes about coding injuries—specifically, multiple and combination coding, as well as coding multiple sites of an injury. We will look closer at these notes, as they apply, when we discuss each category. The Tabular List also notes that you will find categories for “late effects” in codes 905 through 909.

Fractures (800-829)

The codes in this section EXCLUDES the conditions of malunion (733.81), nonunion (733.82), pathological or spontaneous fractures (733.10-733.19) and stress fractures (733.93-733.95). We have discussed pathological, spontaneous and stress fractures in a previous lesson. Here, we will discuss body parts very specifically. We also refer to this information throughout the lesson.

A fracture is a break or rupture in a bone. Fractures are classified as “closed” or “open,” and identified as such by the different fourth digits. If the skin is not injured, the fracture is termed closed. If the broken bone protrudes through the skin, the fracture is referred to as open. A fracture not indicated as closed or open is coded as closed. To ensure proper coding, you also should be aware of other terms that might be used to describe an open or closed fracture. Review the boxed information that follows to keep these other terms in mind as you code.

A closed fracture might be identified by the following terms:

- comminuted
- depressed
- elevated
- fissured
- fracture NOS
- greenstick
- impacted
- linear
- simple
- slipped epiphysis
- spiral
An open fracture might be identified by the following terms:

- compound
- infected
- missile
- puncture
- with foreign body

Once again, when a fracture is not identified as open or closed, or by any of the above terms, you will code to a closed fracture. You will code fractures of multiple sites to each specific site at the level documented by the physician. If the documentation does not provide enough information to identify each specific site, you will code from the category that indicates multiple fractures. For more information about coding fractures, review the Coding Guidelines in the front of your ICD-9-CM manual.

**Fracture of Skull (800-804)**

This section provides fifth-digit subclassifications for use with the appropriate codes in categories 800, 801, 803 and 804. Fracturing the skull can be associated with loss of consciousness. You will use the fifth-digit subclassification for the indicated categories to identify whether there was a loss of consciousness and, if so, the length of the unconsciousness. The fourth-digit classifications for categories 800, 801, 803 and 804 identify whether there was a laceration and contusion; a subarachnoid, subdural or extradural hemorrhage; an intracranial hemorrhage; and whether the fracture was open or closed.

Let’s code a depressed fracture of the parietal bone with a subdural hemorrhage and the patient has been unconscious for an undetermined amount of time. In coding this diagnosis, you will first determine the main term by asking, “What’s the problem?” The problem is the fracture. So turn in the Index to Diseases and locate Fracture, parietal bone. This coding pathway directs you to see Fracture, skull, vault. When you locate these terms, you will see that a subdural hematoma is noted, so you will continue down the pathway Fracture, skull, vault, with, subdural hemorrhage and you have the tentative code of 800.2. Now turn to the Tabular List to determine the highest level of specificity. You will see that 800.2 is correct but that you need to apply the fifth digit. From the information you’ve been given, you know the patient was unconscious for an unspecified duration, so the correct fifth digit is 6. The final code you assign for the given description is 800.26 Fracture of vault of skull, Closed with subarachnoid, subdural and extradural hemorrhage, with loss of consciousness of unspecified duration.

**Fracture of Neck and Trunk (805-809)**

The vertebral column is the flexible, bony case for the spinal cord. A fracture of the vertebral column could likely include a spinal cord injury. You will note that this section contains codes with and without mention of spinal cord injury. As with the codes for diseases and disorders of the spine, those for fractures of the vertebral column are organized by the specific vertebra involved. In addition, codes 805.0 through 805.1 require a fifth-digit subclassification to indicate the specific vertebra fractured. Be sure to select a fifth digit from that box when coding a fractured cervical vertebra without mention of spinal cord injury.
Code category 807 Fracture of rib(s), sternum, larynx and trachea includes a fifth-digit subclassification box for you to use to identify the number of ribs fractured when you are applying codes 807.0 through 807.1. For example, if you are to determine the ICD-9-CM code for a patient who fractured four ribs, you would locate Fracture, rib(s) in the Index to Diseases and find the tentative code of 807.0. When you determine the highest level of specificity in the Tabular List, you will remember that four ribs are noted, so the correct code will be 807.04 Rib(s), closed, four ribs. Do you understand why it is to a closed fracture? Remember that if open or closed is not specified, you code to a closed fracture.

The sternum, commonly known as the breastbone, is a long, flat bone that forms the center part of the chest. The sternum consists of the manubrium, the body and the xiphoid process. The upper part of the manubrium joins with the inner ends of the two clavicles (collarbones). Attached to the sides of the manubrium and the body are the seven pairs of costal (rib) cartilages that join the sternum to the ribs.

Parts of the pelvis that might be fractured are the acetabulum, the pubis, or other specified parts such as the ilium and the ischium. The acetabulum is the hip socket. The rounded, upper end of the femur, known as the head of the femur, fits into the acetabulum or hip socket.
Fracture of Upper Limb (810-819)

The area of the upper limb includes the clavicle, scapula, humerus, radius and ulna. It also includes the carpals, metacarpals and phalanges of the hand. We will discuss each of these code groups briefly. As you review the details of each code group in the Tabular List, notice that the fifth-digit subclassifications throughout identify the specific anatomical site of each bone at which the fracture occurs. You will have lots of opportunity to review your anatomy terminology when you are coding for fractures of these bones of the upper limb! Let’s begin by identifying the bones of the shoulder girdle and how you go about coding for fractures of this area.

Code category 810 contains codes for fractures of the clavicle, commonly referred to as the collar bone. The fifth-digit subclassifications identify the site of a fracture of the clavicle. The site might be unspecified; at the sternal end of the clavicle where the collar bone meets the breastbone; at the shaft, or long slender part of the clavicle; or at the acromial end of the clavicle, which is the highest point of the shoulder.

Fractures of the scapula, or shoulder blade, are listed in code category 811. This category also identifies the site of the fracture with a fifth-digit subclassification. The acromion process is the highest point and outer-most projection of the shoulder joint. It extends sideways from the scapular spine, which is the sharp ridge that runs across the back surface of the shoulder blade and forms the acromioclavicular joint with the clavicle.
The coracoid process projects from the front surface of the upper border of the scapula. It can be felt between the deltoid and pectoralis major muscles, about an inch below the clavicle. The glenoid cavity or arm socket, forms a depression where the head of the humerus bone fits.

You will use code category 812 for fractures of the humerus, the bone that extends from the shoulder to the elbow. The fourth digit identifies the location of the fracture as the upper end, the shaft, which is the long slender part, or the lower end of the humerus. It also specifies whether the fracture is open or closed. The fifth-digit subclassification indicates the portion of the upper end, shaft or lower end of the humerus that was fractured.

Category 813 codes for fractures of the forearm. The forearm consists of the radius and the ulna. The radius is located on the outer or thumb side of the forearm, while the ulna is the inner and larger bone of the forearm. With the forearm, fractures can be of the radius alone, the ulna alone or the radius with the ulna. Again, the fourth digit identifies the fracture location as the upper end, shaft or lower end of the radius and ulna, and whether the fracture is open or closed. You must closely examine the fifth digit in this category because the fracture might be of the radius alone, the ulna alone or the radius with the ulna. Monteggia fracture is sometimes called a parry fracture because it oftentimes occurs when the patient has tried to stop a punch or blow with their forearm. Colles fracture is a break of the lower end of the radius, in which the lower fragment is displaced posteriorly or behind the radius. It is called a reverse Colles fracture if the fragment is displaced anteriorly or in front of the radius. This type of fracture is most commonly found in people older than age 40 and usually results from a fall with the hand outstretched to break the fall.
Now that you have some of the basic terminology and coding details in mind for these groups of codes, it’s time to try your hand again at coding a related diagnosis. Carefully read the following operative report and see what code or codes you come up with for the indicated diagnosis.

PREOPERATIVE DIAGNOSIS
Open Colles fracture, left wrist.

POSTOPERATIVE DIAGNOSIS
Same.

PRIMARY PROCEDURE
OPEN REDUCTION, INTERNAL FIXATION LEFT COLLES FRACTURE WITH DEBRIDEMENT OF OPEN FRACTURE SITE.

INDICATIONS FOR PROCEDURE
This patient presents with an open Colles fracture of the left wrist following an automobile accident. The patient was a passenger in the vehicle that was struck by another vehicle. The patient attempted to brace herself against the dashboard with her left hand resulting in the fracture.
PROCEDURE
After the attainment of adequate general anesthesia, the left upper extremity was prepped and draped. A skin marker was used to mark the appropriate location using the positioner on the forearm for the radius pins. The fracture and open wound were addressed. The wound required significant debridement of the skin and subcutaneous tissue prior to proceeding with the repair of the fracture.

After adequate debridement, the fracture was addressed. I was able to reduce the fracture to the appropriate anatomical position. Fixation was obtained using a modular hand 2-0 titanium plate with 6 cortices on either side of the fracture. Excellent stable fixation was obtained. Rotational alignment appeared to be satisfactory.

The wound was irrigated with normal saline and closed using 3-0 Vicryl and 4-0 nylon monofilament sutures. Sterile Xeroform 4 x 4 cast padding and Ace bandage were used. The patient tolerated the procedure well and went to the recovery room in good condition.

After you've determined what you think is the correct code, compare the process you used and your results to the following summary. To code the postoperative diagnosis for this dictation, you must determine the problem. According to the notes, the patient has a Colles’ fracture. There are two routes for this code. First, open your ICD-9-CM manual to the Index to Diseases and follow the coding pathway Fracture, Colles’, open for the tentative code of 813.51. Now try using the coding pathway of Colles’ fracture, open. You find the same code! Now determine the highest level of specificity for the tentative code 813.51 in the Tabular List. Based on the information there, you can comfortably assign 813.51 Fracture of radius and ulna, Lower end, open, Colles’ fracture for this scenario. Does that match your results? Great!

Next, we will discuss fractures of the carpal bone(s), or wrist, (code group 814); and of the metacarpals or the five bones of the hand that lie between the wrist and the phalanges; and the phalanges or fingers and thumb of the hand (code group 815). The fourth digit of each category identifies the fracture as open or closed. Each category also has a fifth-digit subclassification to identify the location of the fracture(s).

As noted at the beginning of this section on fractures, you will code fractures of multiple sites to each specific site at the level documented by the physician. If the documentation does not provide enough information to identify each specific site, you will code from the category that indicates multiple fractures. Code category 817 applies to multiple fractures of the hand bones, including the metacarpal bone(s) with the phalanges of the same hand. You will use code category 819 to code for multiple fractures that involve both of the upper limbs and an upper limb with the rib(s) and sternum. This group includes arm(s) with rib(s) or sternum, as well as any other bones of both arms.
Fracture of Lower Limb (820-829)

The lower limbs of the body include the *femur*, *tibia* and *fibula*, the ankle, the *tarsal* and *metatarsal* bones and the *phalanges* of the foot.
The **femur** is the long bone of the thigh that extends from the pelvis to the knee. The femur is the longest and largest bone in the body. Fractures of this bone are classified as fracture of the neck of the femur and fracture of other and unspecified parts of the femur. Conditions that relate to the neck of the femur are in code category 820 and are classified to the fourth digit, which identifies the fracture as **transcervical** or **pertrochanteric** and open or closed. A fracture through the neck of the femur is termed **transcervical**, whereas **pertrochanteric** refers to a fracture of the femur that passes through the greater trochanter. Code category **821, Fractures of other and unspecified parts of the femur**, includes the shaft or unspecified part of the femur and the lower or distal end.

The **patella**, or knee cap, is the largest sesamoid bone in the body. This triangular bone is located at the front of the joint of the knee. Category 822 simply describes a fracture of the patella as opened or closed.

In medical terminology, the leg is the part of the lower extremity that extends from the knee to the ankle. The leg contains two bones, the tibia and the fibula. The **tibia** is the larger and weight-bearing bone in the leg. The fifth-digit subclassification of code category 823 identifies whether the fracture consists of the tibia alone, the fibula alone, or the fibula with the tibia. Again, the fourth digit identifies the upper end, shaft or unspecified part of the leg. It also describes the fracture as open or closed.

A fracture of the ankle, category 824, can be classified as medial or lateral malleolus, bimalleolar, trimalleolar or unspecified. If only “ankle fracture” is specified on the documentation you would code to **824.8 Fracture of ankle, Unspecified, closed**.

Code categories 825 and 826 consist of codes that pertain to tarsal and metatarsal bone fractures and fractures of one or more phalanges of the foot. There are seven **tarsal** bones, two of the largest are the **talus** and the **calcaneus**, or heel bone. The other tarsal bones are lined up in a row between the large tarsal bones and the metatarsals. These bones are the navicular, first, second and third cuneiforms and the cuboid. The **metatarsal** bones are five bones that form the arch of the foot. The **phalanges** of the toes are named like the phalanges of the fingers.

Now, look at code categories 828 and 829. Once again, you will find multiple fractures in these codes that involve both lower limbs, lower limb with upper limb and lower limb(s) with rib(s) and sternum. You are to use this category only when the specific bones are not documented. Otherwise, be sure to code each fracture separately.

Whew! That is quite a bit of information, and we have discussed much of the skeletal system in this section of the lesson, as well. As you continue with the lesson, you can refer to the graphics and descriptions of the skeletal system to help you understand dislocations, sprains and strains, superficial injuries, contusions, crushing injuries and burns. Next, we’ll give you a basic overview of the subcategory of codes you will use for dislocations, from code 830 through 839.
Dislocation (830-839)

A separation of two bones in a joint so they no longer touch each other, usually caused by an injury, is called complete displacement. Displacement that leaves the bones in partial contact is called subluxation. Dislocation of a joint is usually accompanied by the tearing of the joint ligaments and damage to the membrane that encases the joint. This section excludes congenital dislocations (754.0-755.8), pathological dislocations (718.2) and recurrent dislocations (718.3). Dislocations can be described as “closed” or “open,” and are identified as such by the fourth-digit subdivision. An opened dislocation is complicated by a wound opening from the surface down to the affected joint. When the joint is not penetrated by a wound, it is a closed dislocation.

An open dislocation might be identified by the following terms:
- Compound
- Infected
- With foreign body

A closed dislocation might be identified by the following terms:
- Complete
- Dislocation NOS
- Partial
- Simple
- Uncomplicated

With your knowledge of the anatomy provided in the fracture section, understanding the various sites of dislocations should be fairly straightforward. Some terminology review, though, will help you to code accurately.

- Anterior—in front of
- Posterior—in back of
- Inferior—below
- Lateral—farther away from the middle
- Medial—closer to the middle

Remember, the acromioclavicular joint is the joint between the acromial end of the clavicle and the medial margin of the acromion. Let’s code a compound dislocation of the acromioclavicular joint. Begin in the Index to Diseases with the main term Dislocation. The subterm acromioclavicular (joint) suggests 831.04 as the tentative code. Reading closer, though, you will note that (closed) is indicated, and a compound dislocation is an open dislocation. So you need to continue in the Index to Diseases until you locate Dislocation, acromioclavicular, open and you note that 831.14 is the tentative code. The Tabular List will confirm that this code is at the highest level of specificity. So 831.14 Dislocation of shoulder, Open dislocation, acromioclavicular (joint) is the correct code to assign for a compound dislocation of the acromioclavicular joint.

Moving on, we’ll now take a look at the next subcategory of codes, ranging from 840 through 848. You will use these codes for diagnoses of sprains and strains of joints and the muscles adjacent to them.
Sprains and Strains of Joints and Adjacent Muscles (840-848)

In this section of codes, the joint capsule, ligament, muscle or tendon might be classified as an avulsion, hemarthrosis, laceration, rupture, sprain, strain or tear. The codes in this group EXCLUDES laceration of the tendon in open wounds, which you would code instead from categories 880 through 884 and 890 through 894. You will not find fifth-digit subclassifications in this category, and there are no open or closed distinctions. A good understanding of the body parts and of various ways strains and sprains might be described are key to coding accurately from this category.

Intracranial Injury, Excluding Those with Skull Fracture (850-854)

Previously, you studied intracranial hemorrhages and intracranial injuries associated with skull fractures. This section deals with intracranial injuries excluding those with skull fractures. Again, as you saw in the intracranial injuries associated with skull fractures, you will use the fifth-digit subclassification for categories 851 through 854 to identify whether there was an associated loss of consciousness and, if so, the length of the unconsciousness.

A concussion, in code category 850, is a significant blow to the head that might result in unconsciousness. This might be a mild concussion with a temporary loss of consciousness, or a severe concussion, with prolonged unconsciousness and inability to function properly. You will code a concussion with mental confusion or disorientation, without actual loss of consciousness, as 850.0 Concussion, With no loss of consciousness. This section EXCLUDES a concussion with cerebral laceration or contusion (851.0-851.9), with a cerebral hemorrhage (852-853) and head injury NOS (959.01).

Remember learning about subarachnoid, subdural and extradural hemorrhages? The hemorrhages in this section are those that occur as a result of an injury rather than a cerebrovascular disease. Let’s review the location of each hemorrhage type: The meninges are three layers of protective membranes that surround the brain and the spinal cord. The thick dura mater forms the outermost layer, followed by the arachnoid and the pia mater.

- The extradural is located outside the dura mater layer.
- The subdural is located between the dura mater and the arachnoid layer.
- The subarachnoid is located between the arachnoid and the pia mater layer.

Internal Injury of Thorax, Abdomen, and Pelvis (860-869)

This section lists many terms that INCLUDES notes to describe injuries of an internal organ. It consists of codes that relate to injuries of the heart, lungs, gastrointestinal tract, liver, spleen, kidneys, pelvic organs and intra-abdominal organs. Be sure to review and become familiar with these terms. As always, there is no need to memorize them. The fourth digit for these codes again identifies the injury with or without mention of an open wound. Those injuries that are mentioned with infection or a foreign body are also considered open wounds.
You will use code category 864 to code for an injury to the liver. This code group requires a fifth-digit subclassification to further describe the injury. Review the details of those fifth digits in the following box.

<table>
<thead>
<tr>
<th>The following fifth-digit subclassification is for use with category 864:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 unspecified injury</td>
</tr>
<tr>
<td>1 hematoma and contusion</td>
</tr>
<tr>
<td>2 laceration, minor</td>
</tr>
<tr>
<td>Laceration involving capsule only, or without significant involvement of hepatic parenchyma [i.e., less than 1 cm deep]</td>
</tr>
<tr>
<td>3 laceration, moderate</td>
</tr>
<tr>
<td>Laceration involving parenchyma but without major disruption of parenchyma [i.e., less than 10 cm long and less than 3 cm deep]</td>
</tr>
<tr>
<td>4 laceration, major</td>
</tr>
<tr>
<td>Laceration with significant disruption of hepatic parenchyma [i.e., 10 cm long and 3 cm deep]</td>
</tr>
<tr>
<td>Multiple moderate lacerations, with or without hematoma</td>
</tr>
<tr>
<td>Stellate lacerations of liver</td>
</tr>
<tr>
<td>5 laceration, unspecified</td>
</tr>
<tr>
<td>9 other</td>
</tr>
</tbody>
</table>

2013 ICD-9-CM Professional for Physicians – Volumes 1 & 2, Salt Lake City, Utah: Ingenix, Inc., page 289, Volume 1

A **hematoma** is usually a clotted, localized collection of blood in the organ. It is caused by a break in the wall of a blood vessel. A **contusion** is a bruise or hemorrhage without a break in the skin. The involvement and disruption of the **parenchyma**, or the functional elements of the liver, if it is lacerated, can be classified as minor, moderate or major.

Codes for injury to the spleen and kidney also require a fifth-digit subclassification to further describe the extent of the injury. The term **capsule** refers to the fibrous tissue layer surrounding the organ, either the spleen or the kidney. The capsule can tear without disrupting the functional elements of the organ, or the tear can extend into the parenchyma.

In case you haven't realized it, you're at the half-way point in this lesson, and it's time to stop for a review of the most recent material. When you feel comfortable that you understand this information, go ahead and complete the following Practice Exercise to see how much you remember. When you're done and have checked your work, you're ready to begin the second half of the lesson.
Step 7: Practice Exercise 28-2

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Blow-out fracture of the orbital floor  
   ICD-9-CM code:

2. Fracture of the C1-C4 with complete lesion of cord, paraplegia  
   ICD-9-CM code:

3. Fracture of humerus at the lateral condyle, infected  
   (HINT: Review the section for descriptions of “closed” and “open” fractures)  
   ICD-9-CM code:

4. Displacement of lumbar vertebra due to major trauma  
   ICD-9-CM code:

5. Traumatic rupture of the interphalangeal joint of the toe  
   ICD-9-CM code:

   ICD-9-CM code:

7. Anterior dislocation of the humerus with a fracture of the acromial end of the clavicle  
   ICD-9-CM code:
   ICD-9-CM code:
8. ICD-9-CM Coding Challenge

HISTORY OF PRESENT ILLNESS
The patient is an 88-year-old white female, household ambulator with a walker, who presents to the emergency department this morning after incidental fall at home. The patient states that she was on the ladder on Saturday, and she stepped down after the ladder and felt some pain in her left hip. Subsequently fell injuring her left shoulder. It is unclear how long she was on the floor. She was taken by EMS to hospital where she was noted radiographically to have a left proximal humerus fracture and a nondisplaced left hip fracture. Orthopedics was consulted. Given the nature of the injury and the unclear events, an extensive workup was performed including a head CT and CT of the abdomen, which identified no evidence of intracranial injury and renal calculi only. She presently is complaining of pain to the left shoulder. She states she also has pain to the hip with motion of the leg. She denies any numbness or paresthesias. She states prior to this, she was relatively active within her home. She does care for her daughter who has MS. The patient denies any other injuries. Denies back pain.

PAST HISTORY
Illnesses: Extensive including coronary artery disease, peripheral vascular disease, status post MI, history of COPD, diverticular disease, irritable bowel syndrome, GERD, PMR, depressive disorder, and hypertension.
Operations: Includes a repair of a right intertrochanteric femur fracture.
ALLERGIES: (1) PENICILLIN. (2) SULFA. (3) ACE INHIBITOR.
Social history: She denies alcohol or tobacco use. She is the caretaker for her daughter who is widowed and lives at home.
Family history: Not obtainable.

REVIEW OF SYSTEMS
Patient is hard of hearing. She also has vision problems. Denies headache syndrome. Presently, denies chest pain or shortness of breath. She denies abdominal pain. Presently, she has left hip pain and left shoulder pain. No urinary frequency or dysuria. No skin lesions. She does have swelling to both lower extremities for the last several weeks. She denies endocrinopathies. Psychiatric issues include chronic depression.

PHYSICAL EXAMINATION
GENERAL: The patient is alert and responsive.
EXTREMITIES: In the left upper extremity, there is moderate swelling and ecchymosis to the brachial compartment. She is diffusely tender over the proximal humerus. She is unable to actively elevate her arm due to pain. The neurovascular exam to the left upper extremity is otherwise intact with a 1+ radial pulse. She does have chronic degenerative change to the MP and IP joints of both hands. In the left lower extremity, the thigh compartment is supple. She has pain with log rolling tenderness over the greater trochanter. The patient has pain with any attempt at hip flexion passively or actively. The knee range of motion is between 5° and 60° with no point specific tenderness, no joint effusion, and an intact extensive mechanism. She has 2-3+ bilateral pitting edema pretibially and pedally. The patient has a weak motor response to the left lower extremity. She has a 1+ dorsalis pedis pulse. Her sensory examination is intact plantarly and dorsally on the foot.
DATABASE
Patient’s H&H is 13 and 38.7, white blood cell count is 6.9, and there are 198,000 platelets.
Electrolytes: Sodium 137, potassium 4.1, chloride 102. CO2 is 27, BUN is 20, and creatinine 0.62.
Urinalysis: The urine is clear yellow, 0-2 white cells, and no bacteria.
Radiographs: Left shoulder series was performed which identifies a 3-part valgus-impacted left proximal humerus fracture with displacement of the greater tuberosity fragment, approximately 1 cm. There is no evidence of dislocation. There was an AP pelvis as well as left hip series, which identify a nondisplaced valgus-impacted type 1 femoral neck fracture. There is also evidence of severe degenerative disc disease with degenerative scoliosis of the LS spine. There is evidence of previous surgical repair of the right proximal femur with an intact intramedullary nail.

ASSESSMENT
This is an 88-year-old household ambulator with a walker, status post fall with injuries to left shoulder and left hip. The left shoulder fracture is a proximal humerus fracture, and the left hip is a nondisplaced femoral neck fracture.

PLAN
I have discussed this case with the emergency room physician as well as the patient. Patient should be admitted to medical service for medical clearance for surgery of her left hip, which will include a percutaneous screw fixation. Since the patient is on Plavix, I recommend that the Plavix be discontinued, and she should be placed on Lovenox 30 mg subcutaneous daily, which may be stopped 24 hours before the procedure. She will need cardiology clearance, which would include an echocardiogram in advance of the procedure. I have explained the nature of the injuries to the patient, the recommended surgical procedures, and the postoperative course and rehabilitation required thereafter. She presently understands and agrees with the plan.

ICD-9-CM code:

Step 8: Review Practice Exercise 28-2
Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 9: Injury and Poisoning (800-999) Part 2
As you complete this second half of the lesson, continue to focus carefully on all the details provided in the notes and guidelines of the ICD-9-CM manual. Don’t get discouraged if you find some information challenging (remember that your instructors are there to clarify things and help you succeed). Keep in mind that when you complete this lesson, you will be ready to apply all the knowledge and skills you have gained to the ICD-9-CM coding practicum in the next lesson!
Healthcare Documentation Program

Open Wound (870-897)

An open wound is simply a trauma to the body in which the tissues have direct exposure to the atmosphere. Terms used in this section of the Tabular List to describe an open wound INCLUDES animal bite, avulsion (ripping or tearing away of a part), cut, laceration, puncture wound and traumatic amputation. The codes in this section EXCLUDES any burn, crushing injury, puncture of internal organs, superficial injury and those conditions incidental to dislocation, fracture, internal injury and intracranial injury. You will code open wounds with mention of delayed healing, delayed treatment, foreign body or infection as “complicated.” Finally, you are to use an additional code to identify an infection if it is specified in the documentation. Understanding both the alternative words that describe an open wound and when you are to code for “complicated” open wounds will help you in coding diagnoses that pertain to this rather fairly straightforward section, which is divided into the following three groups:

1. Open wound of head, neck and trunk (870-879)
2. Open wound of upper limb (880-887)
3. Open wound of lower limb (890-897)

With these guidelines in mind, go ahead and work up the coding diagnosis for the following wound repair.

SUBJECTIVE
Patient sustained a 1.2 cm forehead laceration resulting from a fall down the stairs at home.

OBJECTIVE
Patient seen in the emergency department presenting with a wound to the forehead and requested an evaluation. After examination of the forehead, no foreign body was noted. The laceration was approximately 1.2 cm in length. It was felt sutures would provide the best healing for this injury. Laceration was lavaged, anesthetized, and repaired with 6-0 nylon monofilament sutures. An antiseptic dressing was then applied.

ASSESSMENT
Simple repair of 1.2 cm forehead laceration.

PLAN
The patient is to see his family physician within 3 days.

What coding pathway did you decide to use? The most obvious is probably Laceration, forehead. What code do you find if you use that coding pathway? Nothing? Go back and look again at the beginning of the Laceration section to see what direction the notes provide. You are directed to “see also Wound, open, by site.” When you try that coding pathway, Wound, open, forehead, the Index to Diseases suggests 873.42 as the tentative code. Turn to the Tabular List to confirm this suggestion and you’ll find that 873.42 Other open wound of head, Face without mention of complication, Forehead is the right choice. Did you get the correct code the first time? If so, that’s great! If not, be sure you understand where you got off track before you go to the next section.
Injury to Blood Vessels (900-904)

Injuries whose codes are included in this section \textbf{INCLUDES} arterial hematoma, avulsion, cut, laceration, rupture and traumatic aneurysm or fistula of blood vessels. An injury included under these codes might be secondary to another injury, such as a fracture or an open wound. Injuries included in this section \textbf{EXCLUDES} accidental puncture or laceration of blood vessels during a medical procedure (998.2) and any intracranial hemorrhage following an injury (851.0-854.1).

Late Effects of Injuries, Poisonings, Toxic Effects, and Other External Causes (905-909)

As we've discussed before, late effects indicate a condition that may occur at any time after the acute injury. You will use the codes in this section to indicate conditions that are classifiable to codes from groups 800 through 999. For example, let's say a patient is being seen for an ulcer on his knee. He had a traumatic amputation from the knee down and is currently fitted with a prosthesis. The prosthesis is not fitting well, rubbing the knee, which resulted in an ulcer. The principal diagnosis is the ulcer on the knee. So to code this diagnosis, you will turn in the Index to Diseases to Ulcer, knee, where you are redirected to see Ulcer, lower extremity. Following the new pathway of Ulcer, lower extremity, knee provides you with 707.19 as the tentative code. You then will confirm from the Tabular List that 707.19 is correct. Now, the reason the patient has this ulcer is the ill-fitting prosthesis, which in turn exists as a result of the amputation. So the ulcer is a late effect of the amputation. In the Index to Diseases, locate Late, effect(s) (of), amputation, traumatic, where you will find a tentative code of 905.9, which you then need to confirm in the Tabular List through the usual process. In summary, for this diagnosis, you will assign code 707.19 Ulcer of lower limbs, except decubitus, Ulcer of other part of lower limb, and code 905.9 Late effects of musculoskeletal and connective tissue injuries, Late effect of traumatic amputation.

Superficial Injury (910-919)

Damage inflicted on the body that pertains to or is situated near the body's surface is considered a \textbf{superficial injury}. An example of a superficial injury is a scratch. In fact, if you look up Scratch in the Index to Diseases, you are directed to see Injury, superficial, by site. Other terms used in the ICD-9-CM manual to describe a superficial injury include abrasion, blister, insect bite and superficial foreign body. The fourth-digit subcategory for the codes in this section identifies these descriptive injuries. A superficial injury \textbf{EXCLUDES} a burn or blister due to a burn; contusions; a foreign body that pertains to granuloma and that was inadvertently left in the operative wound, or is residual in soft tissue; a venomous insect bite; and an open wound with incidental foreign body. Superficial injuries are also categorized as with or without mention of infection. This section is further broken down into 10 categories. Be sure to always review the \textbf{INCLUDES} and \textbf{EXCLUDES} of a category to assist you in accurate coding.

Contusion with Intact Skin Surface (920-924)

A \textbf{contusion} might be identified as a bruise or a hematoma. This section contains codes for contusions without fracture or open wounds. The code categories are organized by site. These codes \textbf{EXCLUDES} concussion, hemarthrosis, internal organs and contusions that are incidental to other injury categories. When you code contusions, be sure you are familiar with the exclusions of this section.
Crushing Injury (925-929)

For the codes in this section, you are to use an additional code to identify any associated injuries, such as fractures, internal injuries and intracranial injuries. Again, these codes are categorized by anatomical sites.

For a coding example from this section, let’s say a four-year-old boy was playing on the driveway, and his sister ran over his hand as she rode her bike. The injury was extensive enough to break two distal phalanx and crush two metacarpal bones. To code this injury, you will code the crushed hand as well as the broken fingers. Begin your code search in the Index to Diseases at the main term Broken. You will not find the subterm fingers. The problem is that the term broken is not considered a medical term. A broken bone is a fracture. So now turn to Fracture, and under that you will find the subterms finger(s), of one hand. You are directed to see also Fracture, phalanx, phalanges, hand. Following the alternative pathway of Fracture, phalanx, hand, distal provides the tentative code of 816.02. You’ll then confirm that code based on the information in the Tabular List.

Now let’s turn to the crushing injury of the hand. The coding pathway of Crush, hand, except for finger(s) alone (and wrist) suggests the tentative code of 927.20. Is that the correct code? Turn to the Tabular List to read the description for code 927.20. The text indicates a crushing injury to the wrist and hands, except for the fingers alone. Only the fingers were broken, but the entire hand is indicated as crushed, so you do have the correct code. So to complete your coding for the injury documented in this scenario, you will assign code 816.02 Fracture of one or more phalanges of hand, Closed, distal phalanx or phalanges and code 927.20 Crushing injury of upper limb, Wrist and hand(s), except finger(s) alone, Hand(s).

Effects of Foreign Body Entering Through Orifice (930-939)

For the codes in this section, a foreign body is anything in the body that has been introduced through its openings, such as when a person swallows an object not ordinarily eaten or swallowed. These codes EXCLUDES foreign bodies in open wounds or superficial injuries, residual in soft tissues and those inadvertently left in an operative wound. Site categories included within this section are the external eye, ear and nose. A foreign body might be inhaled into the trachea, bronchus and lung. A swallowed foreign body might be found anywhere in the body that is involved in the digestive tract, from the mouth to the bladder!

Burns (940-949)

The definition of the burns section INCLUDES scalding, chemical burns and burns from electrical heating appliances, electricity, flame, hot objects, lightning and radiation. It EXCLUDES friction burns and sunburns. You will assign codes from categories 940 through 949 for current unhealed burns. The first criterion for classifying burns is the anatomical site.

You cannot code burns using a single code. You code burns by site, by severity or degree of burn, and by the percent of total body surface burned.
You will assign codes from categories 940 through 949 for current unhealed burns. The first criteria, or axis, for classifying burns is the anatomical site. You should code burns individually to the greatest extent possible. For example, if the physician’s report indicates a person has multiple burns and of varying degrees on different areas of the body, you will assign codes for each of the burns to the extent you can. Although there are codes that classify multiple burns, you should assign these codes only when the location of the burns is not documented.

For categories 941 through 946, the fourth digit designates the degree of the burn. A first degree burn is a superficial burn involving only the epidermal layer of the skin. They are inflamed and painful, but they do not blister. A second degree burn involves the dermal layer of the skin. These burns do include blisters, and they are also quite painful since the nerve endings are still intact. A third degree burn is frequently called a full-thickness burn. It goes completely through the skin, which may appear charred and black or dry and white, depending on the burning agent. Since the nerve endings have been severely damaged or destroyed, third degree burns are not usually painful.

As you code burns, you will classify them according to the highest degree recorded in the diagnostic statement. In other words, when you code, a third degree burn takes precedence over a second degree burn, and a second degree burn takes precedence over a first degree burn. For example, let’s practice coding for the diagnosis of first and second degree burns of the upper arm. Turn to the main term Burn in the Index to Diseases. Next, find the site of the burn, which is arm, upper. The burns are indicated to be first and second degree burns, but you will code to the higher degree, so locate second degree. The tentative code of 943.23 will be confirmed when you check it out in the Tabular List. You will code 943.23 Burn of upper limb, except wrist and hand, Blister, epidermal loss [second degree], upper arm for this example. You will not code the first degree burn because it is at the same site as the second degree burn.

When burns are documented at more than one site, you first sequence the code for the site of the highest-degree burn, sequencing the additional codes for the other sites in descending order of degree. Say you have a patient with a first degree burn of the forearm, with first and second degree burns of the upper arm. For the second degree burn of the upper arm in the example above, you determined that 943.23 is the accurate code. Now, return to Burn in the Index to Diseases, and locate the subterms forearm, first degree. Code 943.11 is the tentative code provided. Turn to the Tabular List to confirm this code. You will sequence the highest-degree burn first, so you will assign 943.23 Burn of upper limb, except wrist and hand, Blister, epidermal loss [second degree], upper arm, followed by 943.11 Burn of upper limb, except wrist and hand, Erythema [first degree], forearm.

Category 948 is used to classify burns according to the extent of the body surface area involved. This code can be used by itself when the site of the burn is unspecified, or it is used in conjunction with a code from 940 to 947 to further describe the patient’s condition. Code 948 requires both a fourth digit and a fifth digit. The fourth digit specifies the total percent of the body surface burned at any degree. The fifth digit specifies the percent of the body surface with third degree burns only. Code 948 could also be used for a patient who suffered first degree burns to the chest wall and second degree burns to the abdominal wall with 11 percent of the total body surface area burned. Along with codes 942.23 and 942.12 showing the site and degree, you may use 948.10 to show that 11 percent of the total surface area was burned, but none of the burns were third degree burns.
The method used to estimate burned body surface in burn patients is called the **Rule of Nines**. The different areas of the body make up percentages: Head and neck 9%, each arm 9%, anterior trunk 18%, posterior trunk 18%, genitalia 1%. This rule applies to adults only and is not to be used for children. Consult the physician caring for the child before you assign burn percentages for children.

So let’s build on our previous example with a diagnosis of first-degree burn of the forearm, with first and second degree burns of the upper arm and 4 percent of the total body surface area is documented as burned. You’ve already determined the first two codes to be **943.23** and **943.11**. For the third code, you’ll return to the main term **Burn** in the **Index to Diseases**, and then locate the subterm **extent (percentage of body surface)**. The tentative code indicated for less than 10 percent of body surface is **948.0**. You then turn to the **Tabular List** to determine the highest level of specificity. Remember that the fifth-digit subclassification pertains to third degree burns, which these are not. So the correct percentage code is **948.00 Burns classified according to extent of body surface involved, Burn [any degree] involving less than 10 percent of body surface, less than 10 percent or unspecified (3rd degree burn)**. You will record the final codes for this complete diagnosis as **943.23 943.11 948.00**.

**Injury to Nerves and Spinal Cord (950-957)**

This section **INCLUDES** codes for division of nerve, lesions in continuity, traumatic neuroma and traumatic transient paralysis that may occur with an open wound. These codes **EXCLUDES** accidental puncture or laceration during a medical procedure, which in that circumstance you are to code to 998.2 instead. Injuries to nerves include injuries to the optic nerve, cranial nerves, nerve roots and peripheral nerves. Spinal cord injuries are classified by site: cervical, dorsal or thoracic, lumbar, sacral, cauda equina, multiple or unspecified sites. Both the cervical and dorsal sites indicate the level of the spinal cord injury.
ICD-9-CM Coding—From Symptoms to Complications

Certain Traumatic Complications and Unspecified Injuries (958-959)

Category 958 consists of codes for early complications of trauma. This code group EXCLUDES adult respiratory distress syndrome, flail chest, post-traumatic seroma, shock lung related to trauma and surgery and those that occur during or following medical procedures. These conditions include air and fat embolism, secondary and recurrent hemorrhage and traumatic shock.

You will use code category 959 only for unspecified injuries. If the documentation notes an injury of the ear but doesn’t specify what type of injury, you will assign code 959.09.

Poisoning by Drugs, Medicinal, and Biological Substances (960-979)

Turn to the Tabular List to see what information is provided to help you accurately code the conditions included in this section. Poisonings listed in codes 960 through 979 INCLUDES an overdose of any drug, medicinal or biological substance and instances of the wrong substance given or taken in error. This section contains exclusions that you should review when you are coding any poisoning by drugs, medicinal and biological substances. Note, for example, that the section EXCLUDES adverse effects of any correct substance properly administered. In this case, only the code for the adverse effect and the E code are used—not the poisoning code.

The Tabular List also notes that you are to use an additional code to specify the effects of poisoning. Remember that at the beginning of this chapter, the Tabular List instructs you to use an E code to identify the cause and intent of the injury or poisoning. Although we put our discussion of the E codes that pertain to injuries on hold, we will be explaining the use of E codes in conjunction with the poisoning codes. Remember: E codes are a Supplemental Classification of External Causes of Injury and Poisonings. Finally, when you assign poisoning codes always sequence the poisoning code first, followed by the manifestation code, if noted, and then the E code.

The primary goal of this portion of the lesson is to learn to use the Table of Drugs and Chemicals accurately so you can find the correct code. Turn to the beginning of the Table of Drugs and Chemicals, Section 2 of Volume 2. You are to use the codes contained in this section when the documentation includes a statement of poisoning, overdose, wrong substance given or taken or intoxication. The table headings that pertain to external causes are defined as follows:

- **Accidental poisoning**—accidental overdose of a drug, the wrong drug given or taken, or a drug unintentionally taken or administered. It is also used to show toxic external causes of substances that are mainly nonmedicinal.
- **Therapeutic use**—a correct substance properly administered but that results in an adverse effect.
- **Suicide attempt**—self-inflicted poisonings.
- **Assault**—poisoning inflicted by another person with intent to injure or kill.
- **Undetermined**—intent of the poisoning, whether intentional or accidental, cannot be determined.
Let's look at an example scenario and walk through the process of using the *Table of Drugs and Chemicals*.

**SUBJECTIVE**
A 15-year-old female is brought into the emergency department after accidentally taking an antihistamine drug. She is complaining of shortness of breath.

**OBJECTIVE**
The physician performs a detailed physical examination.

**ASSESSMENT**
Poisoning from the medicine, resulting in respiratory distress.

**PLAN**
Use pulse oximetry to maintain SaO2 at 96% via nasal cannula. Continuous blood pressure and pulse monitoring. Give patient 30 mL ipecac syrup followed by 200-300 mL of water. Repeat dose 1 time if vomiting does not occur in 20 minutes. Will reassess following treatment.

What is the problem? Respiratory distress. So you'll turn to the *Index to Diseases* and find the coding pathway *Distress, respiratory*. The tentative code of **786.09** is provided. Then, determine the highest level of specificity and confirm that this is the accurate code based on the information provided in the *Tabular List*.

Now you need to determine what drug is causing the respiratory distress. The documentation indicates it is an antihistamine. You’ll find *Antihistamine* in the *Table of Drugs and Chemicals*. In the first column, you’ll find the poisoning code **963.0**, and then you’ll look across the columns until you find *Accident*. The corresponding code for antihistamine in the Accident column is **E858.1**. You can then confirm each of these codes in the *Tabular List*.

To accurately sequence the codes, you list the poisoning code first, followed by the manifestation and then the E code. You assign the codes as **963.0, 786.09** and **E858.1** for this scenario. Did you follow the process and how to determine all three codes? If not, go back over the steps; then, if you still have questions, check with your instructor for clarification.

### Toxic Effects of Substances Chiefly Nonmedicinal As to Source (980-989)
This section consists of codes for toxic effects that pertain to, are due to, or are of the nature of a poison or toxin from a substance that does not have a healing quality. Examples of such substances are mercury, mushrooms or asbestos poisonings.

### Other and Unspecified Effects of External Causes (990-995)
Conditions you will find within this section of codes are frostbite, heat stroke, motion sickness, adverse effects not elsewhere classified and systemic inflammatory response syndrome.

An adverse effect of a drug is when it is correctly prescribed and properly administered but the patient suffers with a bad reaction. These adverse effects include tachycardia, delirium, gastrointestinal hemorrhaging, vomiting, hypokalemia, hepatitis, renal failure or respiratory failure. When you are coding an adverse effect to proper use of medication, you will sequence the adverse effect first, followed by the E code to identify the agent as a therapeutic use. You will not record the poisoning code.
Now it's your turn. Code and sequence the following scenario, and then compare your results to the summary that follows.

SUBJECTIVE
A 42-year-old male complaining of severe dizziness is seen by his family physician. He has been taking fluoxetine for the past 2 weeks as prescribed for his depression.

OBJECTIVE
A detailed physician examination is performed.

ASSESSMENT
The patient is having dizziness secondary to the fluoxetine hydrochloride.

PLAN
Patient is advised to discontinue use of the drug. Begin Xanax XR 0.5 mg once daily and call in 3 days for dosage increase if necessary.

To code this scenario, you will code the dizziness as the principal diagnosis and then the appropriate E code. Turn to the Index to Diseases and locate Dizziness, for which you are provided the tentative code of 780.4. Using the Tabular List, determine the highest level of specificity for that code. Now turn in the Table of Drugs and Chemicals, and locate the drug Fluoxetine hydrochloride. Find the code provided in the Therapeutic Use column, which is E939.0. So you will assign codes 780.4 Dizziness and giddiness and E939.0 Antidepressants, in that order, for this example.

The ICD-9-CM manual provides code 995.2 Unspecified adverse effect of drug, medicinal and biological substance to identify an adverse reaction when the nature of the reaction is not specified. You will apply a final digit to identify the substance.

Also remember that when you assign poisoning codes, you always sequence the poisoning code first, followed by the manifestation code, such as coma, and then the appropriate E code.

Complications of Surgical and Medical Care, Not Elsewhere Classified (996-999)

As you will see when you look at this section of codes for surgical and medical complications, it excludes a number of conditions. Turn to the Tabular List to review the extensive list of exclusions to this section. If the complication can be classified elsewhere, you will not use the codes of this section. No time limit is defined for the development of a complication. The complication might occur during the hospital episode in which the care was provided, shortly thereafter or even years later. When the complication occurs during the episode in which the operation or other care was given, the complication code is assigned as a coexisting condition to the principal diagnosis. When the complication develops later and is the reason for the visit, the complication is designated as the principle diagnosis. Category 996 codes for any complication peculiar to certain specified procedures. These conditions pertain to a device, implant or graft of the cardiac, vascular, genitourinary, internal orthopedic nature; prosthetics; transplanted organs; or reattached extremity or body parts. You will use an additional code to identify the specified infections pertaining to internal prosthetics. For transplanted organs, identify the nature of the complication with an additional code.
Let’s try coding a complication of a breast prosthesis due to a Staphylococcal aureus infection. In the Index to Diseases locate the coding pathway of Complications, breast implant (prosthetic), infection or inflammation and you will find the tentative code of 996.69. Turn to the Tabular List to verify this code. The beginning of 996.6 directs you to use an additional code to identify the specified infection, which is the staphylococcus aureus. Now turn to Infection, staphylococcal, aureus in the Index to Diseases. The tentative code 041.11 would be confirmed in the Tabular List as well. Now you can assign 996.69 Infection and inflammation reaction due to internal prosthetic device, implant, graft, Due to other internal prosthetic device, implant or graft and 041.11 Staphylococcal aureus for this diagnosis.

Complications affecting specified body systems, not elsewhere classified, are coded from category 997. You are to use an additional code to identify the complications. The anatomical sites are provided, with inclusions, exclusions and additional notes to assist you in accurate coding.

Postoperative shock, accidental puncture during a procedure and postoperative infection are some conditions found in category 998. Category 999 includes codes for air embolisms, phlebitis and infections following an infusion, injection, transfusion or vaccination.

This concludes the first 17 chapters of the Tabular List. Let’s pause to review what you’ve learned before wrapping up the ICD-9-CM lessons.
Step 10: Practice Exercise 28-3

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Patient on bicycle crashed into the windshield of a parked car, resulting in traumatic enucleation of right eyeball and multiple lacerations of the forehead.
   ICD-9-CM code:
   ICD-9-CM code:

2. Laceration of the forearm, with tendon involvement
   ICD-9-CM code:

3. Compound femoral shaft fracture with femoral vein avulsion
   ICD-9-CM code:
   ICD-9-CM code:

4. Blister on heel of foot due to uncomfortable shoes
   ICD-9-CM code:

5. Black eye, fractured nose and multiple facial contusions
   ICD-9-CM code:
   ICD-9-CM code:
   ICD-9-CM code:

6. Compound fracture of the medial malleolus with crushing injury to the ankle
   ICD-9-CM code:
   ICD-9-CM code:

7. Patient presents with 1st and 2nd degree burns of the thigh, 2nd degree burns of the back, 13% of the body surface involved
   ICD-9-CM code:
   ICD-9-CM code:
   ICD-9-CM code:

8. Accidental barbiturate overdose
   ICD-9-CM code:
   ICD-9-CM code:

9. Swallowed nail polish remover as a suicide attempt
   ICD-9-CM code:
   ICD-9-CM code:
Use the following information to complete the CMS-1500 that follows.

10. ICD-9-CM Coding/Billing Challenge

<table>
<thead>
<tr>
<th>Eric Sulliman, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 Main Street</td>
</tr>
<tr>
<td>Yourtown, CO 80000</td>
</tr>
<tr>
<td>(970) 555-1717</td>
</tr>
</tbody>
</table>

**Patient Information**

<table>
<thead>
<tr>
<th>Name</th>
<th>Steven Gibbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Birth</td>
<td>08-10-2000</td>
</tr>
<tr>
<td>Address</td>
<td>1343 Oval Street</td>
</tr>
<tr>
<td>City</td>
<td>Windsor</td>
</tr>
<tr>
<td>State</td>
<td>CO</td>
</tr>
<tr>
<td>ZIP</td>
<td>80520</td>
</tr>
<tr>
<td>Home Phone</td>
<td>970-555-7643</td>
</tr>
</tbody>
</table>

**Employment Information**

<table>
<thead>
<tr>
<th>Name of Employer</th>
<th>Advanced Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>1801 SW Vine Street</td>
</tr>
<tr>
<td>City</td>
<td>Denver</td>
</tr>
<tr>
<td>State</td>
<td>CO</td>
</tr>
<tr>
<td>ZIP</td>
<td>80217</td>
</tr>
</tbody>
</table>

**Insurance Information**

<table>
<thead>
<tr>
<th>Primary Insurance</th>
<th>Mountain States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Michael Gibbs</td>
</tr>
<tr>
<td>ID#</td>
<td>012-34-5678</td>
</tr>
<tr>
<td>Group#</td>
<td>420</td>
</tr>
<tr>
<td>Address</td>
<td>1801 SW Vine Street</td>
</tr>
<tr>
<td>City</td>
<td>Denver</td>
</tr>
<tr>
<td>State</td>
<td>CO</td>
</tr>
<tr>
<td>ZIP</td>
<td>80217</td>
</tr>
</tbody>
</table>

**Primary Insured Name**

<table>
<thead>
<tr>
<th>Name</th>
<th>Michael Gibbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relation to Patient</td>
<td>father</td>
</tr>
<tr>
<td>DOB</td>
<td>2-11-1969</td>
</tr>
</tbody>
</table>

**Employer**

<table>
<thead>
<tr>
<th>Advanced Communications</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Signature of patient (or parent of minor child)</th>
</tr>
</thead>
</table>

**Signature of patient (or parent of minor child)**

**Physician signature:** Eric Sulliman, M.D.

<table>
<thead>
<tr>
<th>SSN</th>
<th>987-21-5432</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPI</td>
<td>0377484809</td>
</tr>
</tbody>
</table>

**Participating Provider for:** All private insurance

<table>
<thead>
<tr>
<th>Date of Service</th>
<th>9/10/20XX</th>
</tr>
</thead>
</table>

**Diagnosis**

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>99204 New Patient, Office Service</td>
<td>$88.00</td>
</tr>
</tbody>
</table>

**Today’s Charge**

<table>
<thead>
<tr>
<th>Cash/Check</th>
<th>$0.00</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Balance</th>
<th>$88.00</th>
</tr>
</thead>
</table>
Name: Steven Gibbs  
DOB: August 10, 2000  
Date of Service: September 10, 20XX

CHIEF COMPLAINT  
Burn, right arm.

HISTORY OF PRESENT ILLNESS  
This patient had hot oil splashed onto his arm, burning from the elbow to the wrist on the medial aspect. He has had it cooled and presents with his father to the office as a new patient for care.

PAST HISTORY  
Noncontributory.  
Medications: None.  
ALLERGIES: NONE.

PHYSICAL EXAMINATION  
GENERAL: Well-developed, well-nourished male child who is appropriate and cooperative. His only injury is to the right upper extremity. There are 1st- and 2nd-degree burns on the right forearm, ranging from the elbow to the wrist. The 2nd-degree areas with blistering are scattered through the medial aspect of the forearm. There is no circumferential burn, and I see no areas of deeper burn. The patient moves his hands well. Pulses are good. Circulation to the hand is fine.

DISPOSITION  
Home.

ASSESSMENT  
There are 1st-degree and 2nd-degree burns, right arm, secondary to hot oil spill.

PLAN  
The wound is cooled and cleansed with soaking in antiseptic solution. The patient was given Demerol 50 mg IM for pain. A burn dressing is applied with Neosporin ointment. The patient is given Tylenol No. 3, tabs #4, to take home with him and take 1 or 2 every 4 hours p.r.n. for pain. He is to return tomorrow for a dressing change. Tetanus immunization is up to date. Preprinted instructions are given.
Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 12: Lesson Summary

Congratulations—you’ve completed another lesson in your ICD-9-CM coding training, and the end of your introductory journey through the coding pathways of ICD-9-CM coding is in sight! As you are well aware, you’ve covered a tremendous amount of information. Whenever you use the ICD-9-CM manual, both during the remainder of this program and as you gain experience in your new profession as a healthcare document specialist, you will increase your understanding and coding skills along the way. Hopefully, though, you already have a solid sense of what’s involved in coding medical conditions and diagnoses.

Step 13: Quiz 20

Once you’ve mastered the course content, locate this Quiz in your Online Course or your Assignment Pack. Read and follow the Quiz instructions carefully.
Terrific effort!

You’re ICD-9-CM lessons are almost complete.

The final step in ICD-9-CM coding is just ahead!

The next lesson wraps up your study of the ICD-9-CM. You’ll learn how to code routine exams.

No need to wait for your Quiz results to move on to the next lesson.
Lesson 29
V Codes, E Codes and ICD-9-CM
Coding Practicum

Step 1: Learning Objectives for Lesson 29

When you have completed the instruction in this lesson, you will be trained to do the following:

● Define and identify factors and conditions classified in the ICD-9-CM’s V codes and E codes.

● Identify the diagnoses, outline the coding pathway and assign the final code for conditions that require the use of V codes and E codes.

● Review the steps for correct coding.

● Review Outpatient Coding Tips for accurate coding.

● Explain the sequencing guidelines.

● Assign ICD-9-CM diagnostic codes for outpatient medical records.

Step 2: Lesson Preview

Whew! You’re probably relieved to have reached the last ICD-9-CM coding lesson! But just think about how much you’ve accomplished already. You’re well on your way to becoming a healthcare document specialist. In this lesson you’re going to get a quick review of all you’ve learned about diagnostic coding. Then you’ll be ready to tackle your coding practicum.

Before we get to that practicum, though, there’s just a bit more we need to cover. We’re going to discuss the V codes and E codes in your ICD-9-CM manual. As always, you’ll learn when and how they’re used. And you’ll get some practice coding with them. You’ll be a pro in no time!

We want to remind you one more time that your instructor is available to help you. You’ll want to make sure you have all your questions answered before you take your practicum. So don’t hesitate to call your instructor. Now, let’s get started with this lesson.
Step 3: Supplementary Classification of Factors Influencing Health Status and Contact with Health Services (V01-V91)

Turn in the Coding Guidelines in the front of your ICD-9-CM manual to C18, Classification of Factors Influencing Health Status and Contact with Health Service coding guidelines. As the guidelines indicate, there are four primary circumstances for the use of V codes. They are used for those not currently sick, those with a resolving disease, those with influencing factors to their health and for the birth status of newborns. You can use some V codes as primary or secondary diagnosis codes, while others can only be assigned as secondary diagnosis codes. Before we discuss the specifics of this chapter, following is a list of main terms that indicate the need for a V code:

<table>
<thead>
<tr>
<th>Admission (encounter) for</th>
<th>Aftercare</th>
<th>Attention to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boarder</td>
<td>Care (of)</td>
<td>Carrier</td>
</tr>
<tr>
<td>Checking (of)</td>
<td>Contact</td>
<td>Contraception, Contraceptive</td>
</tr>
<tr>
<td>Counseling</td>
<td>Dialysis</td>
<td>Donor</td>
</tr>
<tr>
<td>Examination</td>
<td>Fitting (of)</td>
<td>Follow-up</td>
</tr>
<tr>
<td>Health</td>
<td>Healthy</td>
<td>History</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Maladjustment</td>
<td>Observation</td>
</tr>
<tr>
<td>Problem (with)</td>
<td>Prophylactic</td>
<td>Replacement by artificial or mechanical device or prosthesis of</td>
</tr>
<tr>
<td>Screening (for)</td>
<td>Status (post)</td>
<td>Supervision (of)</td>
</tr>
<tr>
<td>Test (s)</td>
<td>Transplant (ed)</td>
<td>Unavailability of medical facilities (at)</td>
</tr>
<tr>
<td>Vaccination</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persons with Potential Health Hazards Related to Communicable Diseases (V01-V06)

You will use the codes in this section to code for persons who receive medical treatment as a result of their contact or exposure to various communicable diseases. This section is also used for vaccinations and inoculations individuals receive to protect against certain communicable diseases. Among the many communicable diseases that are included in these code groups are anthrax, cholera, the common cold, encephalitis, hepatitis, influenza, measles, plague, poliomyelitis, rabies, rubella, smallpox, tetanus, tuberculosis, typhoid, venereal diseases and other viral diseases. Vaccinations and inoculations also include those available for the diseases mentioned here and others.

Contact or Exposure

When a person has been exposed to a disease but does not show signs or symptoms of the disease, you will use code category V01. Assigning this code as a principal diagnosis indicates the need for testing. As a secondary diagnosis, code V01 identifies the potential risk for the person to contract the disease.
Take a look at the following SOAP note, and then practice coding the diagnosis. When you’re done, compare your results to the summary that follows.

SUBJECTIVE
A 9-year-old male who presents with a fever is seen by the family doctor. The boy’s sister was diagnosed with chickenpox last week.

OBJECTIVE
Physical exam reveals a low-grade fever. No rash.

ASSESSMENT
Fever. Rule out chickenpox.

PLAN
Patient will be sent for a blood test to verify whether the varicella-zoster virus is present.

Chickenpox is not confirmed at this time, so you cannot code it. You will code the fever and the fact that the patient has been exposed to the varicella virus. To do so, first locate Fever in the Index to Diseases, where you will find the tentative code of 780.60. Be sure to verify that code in the Tabular List. Then turn to Exposure, in the Index to Diseases, and locate to, varicella, with a tentative code of V01.71. The Tabular List indicates that code V01.71 is correct. You will assign 780.60 Fever as the principal diagnosis because the fever is the reason for the visit, and V01.71 Contact with or exposure to communicable diseases, Other viral diseases, Varicella as the coexisting diagnosis and the reason for the blood test.

Inoculations and Vaccinations
You will assign codes from V03 through V06 when the patient is being seen for inoculations and vaccinations. When the vaccinations are given as part of the well baby visit, you can assign codes V03 through V06 as secondary codes to the well baby code.

Let’s say a 68-year-old female is seen at the clinic for a flu (influenza) vaccination. To assign the ICD-9-CM code for this encounter, locate Vaccination, prophylactic, influenza with a tentative code of V04.81. Find this code in the Tabular List. The information there will confirm that V04.81 Need for prophylactic vaccination and inoculation against certain viral diseases, Other viral diseases, Influenza is the accurate code for this encounter.

Persons with Need for Isolation, Other Potential Health Hazards and Prophylactic Measures (V07-V09)
Prophylactic measures are tactics used to prevent a disease. In a previous lesson, in the “Certain Conditions Originating in the Perinatal Period” section, we discussed Rh isoimmunization. Remember that this is the situation in which the mother is Rh negative and the fetus is Rh positive, and the mother develops antibodies against the “foreign” blood of the fetus. When antibodies cross the placenta, they destroy the infant’s red blood cells. Testing can be done to determine whether the Rh factor might be a problem in the pregnancy. Rh-immune globulin can be given to the mother at 28 weeks into the pregnancy to help prevent the destruction of the red blood cells in the fetus. This is an example of prophylactic immunotherapy, and will be coded V07.2.
Persons with Potential Health Hazards Related to Personal and Family History (V10-V19)

History codes are important because they might alter the type of treatment ordered. Applying a personal history code indicates that the condition no longer exists and the patient is no longer receiving treatment for that condition. The potential for recurrence or the development of other conditions still exists, and therefore the patient requires careful monitoring. Family history of certain conditions causes the patient to be at a higher risk for those conditions, as well. History codes can be assigned to any medical record regardless of the reason for the visit.

Persons Encountering Health Services in Circumstances Related to Reproduction and Development (V20-V29)

The following guidelines govern your selection of the principal diagnosis when the encounter is for obstetric care other than delivery:

- The principal diagnosis should correspond to the complication of the pregnancy that necessitated the admission or encounter. If more than one complication is present, all of which are treated or monitored, you can first sequence any of the complication codes.
- For routine prenatal visits when no complications are present, you will assign code V22.0 or V22.1 as the reason for the encounter.
- When the admission or encounter is for the care of a condition totally unrelated to the pregnancy, you will assign code V22.2 as an additional code.
- You can assign a code from category V23 either as the principal diagnosis or as an additional diagnosis when a pregnant patient is in a high-risk category.
- When a patient delivers outside of the hospital and is then admitted for routine postpartum care with no complications present, you will assign V24.0 as the principal diagnosis.
- If a patient encounter is for the purpose of prenatal screening for fetal abnormality, you will assign a code from category V28, with the fourth digit indicating the area of concern.

The codes for encounters for routine exams and general check-ups are found located within this section. Routine infant or child health check, coded to V20.2 Routine infant or child health check, includes developmental testing, immunizations and routine vision and hearing testing. When coding “well child care,” you will use the coding pathway of Examination, health (of), child, routine to locate V20.2. When the vaccinations are given as part of the well baby visit, you can assign codes V03 through V06 as secondary codes, but these codes are not required.
For example, an eight-month-old female is seen by her pediatrician for a well child exam and receives a DTaP vaccination. DTaP stands for diphtheria, tetanus toxoids and acellular pertussis. In this scenario, you will code V20.2, as determined above, for the well child examination. This is the only necessary code, but you can code for the vaccination as a secondary diagnosis. To do so, locate the coding pathway of Vaccination, prophylactic, diphtheria, with tentanus, pertussis combined in the Index to Diseases. DTaP is indicated in parentheses and the tentative code V06.1 is provided.

Turn to the Tabular List to verify this code. You would assign V20.2 Health supervision of infant or child, Routine infant or child health check and V06.1 Need for prophylactic vaccination and inoculation against combinations of diseases, Diphtheria-tetanus-pertussis, combined [DTP] [DTaP] for this scenario.

Normal pregnancy can be classified as V22.0 Supervision of normal first pregnancy, V22.1 Supervision of other normal pregnancy, or V22.2 Pregnant state, incidental. You will use these codes for normal, routine, prenatal visits. These codes are usually the principal diagnosis.

**Persons with a Condition Influencing Their Health Status (V40-V49)**

A status code is important because the individual's health “status” might affect the course of treatment and its outcome. For instance, let's say a person complains of chest pain and her status is “postcoronary artery bypass graft” or post CABG. If you code only to the chest pain, that code does not provide the entire story. The fact that the person had the CABG indicates a previous problem with the heart. The current chest pain might be related to the CABG or the previous problems, but the conditions also might not be related. The physician may order additional tests or require a higher level of service because of the uncertainty. To code for this example, you will locate Pain, chest with a tentative code of 786.50 and Status (post), coronary artery bypass or shunt with a tentative code of V45.81. To confirm these codes, be sure to determine the highest level of specificity in the Tabular List before you assign them.

**Persons Encountering Health Services for Specific Procedures and Aftercare (V50-V59)**

When the initial treatment of a disease or injury has been completed, but continued care is required during the healing or recovery time, aftercare V codes are assigned. These codes are generally the principal codes because the conditions they specify are the reason for the encounter. The code for a person seen to have a hearing aid fitted will be coded from this category. The coding pathway Fitting, hearing aid suggests the tentative code of V53.2. Turning to the Tabular List and reviewing the information there confirms that V53.2 Fitting and adjustment of other device, Hearing aid is the correct code.

You will use codes in category V59 for living individuals who are donating blood or other body tissue to others. This code group is not for self-donations. In other words, you do not use code V59 to identify cadaveric, or dead body, donations.
Persons Encountering Health Services in Other Circumstances (V60-V69)

You will find housing, household and economic circumstances are found in code category V60. These circumstances includes inadequate housing and lack of housing, to persons living alone. Counseling codes, which are a large portion of this section, have two classifications. First, you will use counseling codes to describe assistance in the aftermath of an illness or injury. Second, you will use them when support is required for individuals to cope with family or social problems. You can use these in conjunction with a diagnosis code but doing so is not necessary.

Persons Without Reported Diagnosis Encountered During Examination and Investigation of Individuals and Populations (V70-V82)

Screening refers to testing for any number of disease indicators in seemingly well individuals, so that early detection and treatment can be provided for those who test positive. A routine mammogram, code V76.12, is an example of this type of screening. Code V76.12 is the principle diagnosis, and it indicates the reason for the screening is a routine mammogram. The diagnosis code V76.12 must be specific to that type of screening with the procedure documented. If a condition is discovered during the screening, you will then code that condition as an additional diagnosis. Testing to “rule out” or “confirm” a suspected diagnosis does not fall into the category of screening. When testing is documented for these purposes, you will code to the signs or symptoms of the unconfirmed diagnosis.

To help clarify these guidelines related to screening codes, review the following SOAP note and the explanation about how you would determine the correct codes.

SUBJECTIVE
This pleasant 54-year-old female, with a history of left mastectomy due to estrogen-sensitive breast cancer, was sent by her oncologist to have a fractional curettage. The patient states she has been on 20 mg tamoxifen once daily for the past 2 years. Her oncologist informed her that one of the side effects of tamoxifen is endometrial carcinoma and encouraged her to have this test done by her gynecologist.

OBJECTIVE

ASSESSMENT
Histological confirmation was negative for carcinoma.

PLAN
Continue tamoxifen as ordered. Return if any abnormal cramping or bleeding occurs.
When endometrial carcinoma is a possibility, either from a personal or family history, the physician can order fractional curettage. Because tamoxifen is taken to reduce the chances of the patient’s breast cancer from reoccurring, and a side effect of this drug is endometrial carcinoma, a fractional curettage can be justified. You will use a V code to establish that the patient has a personal history of a malignant neoplasm.

For these SOAP notes, you will code the screening for the malignant neoplasm and the patient’s personal history of breast cancer. The coding pathway for the screening is Screening, malignant neoplasm, specified sites with a tentative code of V76.49. The personal history coding pathway is History of, malignant neoplasm, breast, with a tentative code of V10.3. When you have verified the codes in the Tabular List, you will assign V76.49 Special screening for malignant neoplasms, Other sites and V10.3 Personal history of malignant neoplasm, Breast for this dictation.

The code categories not specifically highlighted in this section are fairly straightforward to code. Just use the Index to Diseases carefully and read the notes in the Tabular List before assigning a code.

It’s time for a Practice Exercise to review and apply what you’ve learned in this portion of the lesson. It won’t be long now until you have completed this introduction to ICD-9-CM coding and be ready to demonstrate your coding expertise in this area!

**Step 4: Practice Exercise 29-1**

Determine the correct ICD-9-CM code(s) for the following conditions.

1. Metastatic carcinoma to the brain, with a personal history of breast cancer.
   - ICD-9-CM code:
   - ICD-9-CM code:

2. Chest pain, status postsurgical.
   - ICD-9-CM code:
   - ICD-9-CM code:

   - ICD-9-CM code:
   - ICD-9-CM code:
4. **ICD-9-CM Coding Challenge**

**GYNECOLOGICAL CONSULTATION REPORT**

**REASON FOR REFERRAL**
Patient referred for pelvic examination as part of routine physical before beginning diet and exercise program. The patient is 10 pounds overweight, otherwise feeling fine.

**PAST HISTORY**
Habits: The patient does not smoke or drink.  
Illnesses: Usual childhood diseases. No serious illnesses.  
ALLERGIES: NO KNOWN DRUG ALLERGIES.  
Family history: Parents and 4 siblings alive and well. No family history of breast cancer or uterine cancer.

**REVIEW OF SYSTEMS**
Gastrointestinal: Stools brown. No diarrhea or constipation. No nocturia or hematuria.  
Gynecologic: Last regular menses 2 days ago. Sexually active. No birth control methods used. Breast tenderness, only premenstrual.

**PHYSICAL EXAMINATION**
GENERAL: This is a well-nourished, well-developed 26-year-old female in no acute distress.  
Temperature: 98.6 °F.  
NECK: No thyromegaly.  
ABDOMEN: Soft and slightly full in the suprapubic region. No masses or organomegaly palpated.  
No enlargement, masses or fixation. No adnexal masses or fixation. Cervical smears obtained. No cervical erosions. No cul-de-sac fluid.  
RECTAL: No blood on the examining glove. Stool guaiac negative.

**DATABASE**

**ASSESSMENT**
Normal gynecologic examination.

**RECOMMENDATIONS**
Call office in 1 week for results of Pap smear. Agree with diet plan.

**ICD-9-CM code:**

---

**Step 5: Review Practice Exercise 29-1**

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.
Step 6: Supplementary Classification of External Causes of Injury and Poisonings (E000-E999)

External causes, or E codes, identify environmental events, circumstances and conditions that relate to the cause of injury, poisoning and other adverse effects. We’ve explained the use of E codes in relation to poisoning. They are used to identify the cause as accidental, a suicide attempt, an assault or of undetermined intent. We’ve discussed adverse effects and how to code for the manifestation and identification of the therapeutic use of a drug. Now it’s time to discuss the use of E codes in relation to injuries.

E codes are supplemental to the diagnostic coding and are never to be used as principal diagnosis codes. You are not required to report these codes to the Centers for Medicare and Medicaid Services (CMS). E codes are intended to provide data for research and analysis for injury prevention. Some physicians do not report E codes unless the case is one of poisoning or of adverse effects or unless directed to by the principal diagnosis. You will want to verify with your provider whether you are to apply E codes in other instances. The rules that follow apply to those circumstances in which the provider requests coding of the external causes in all circumstances.

- You might code the external cause with any diagnosis.
- To indicate how and where the accident occurred, if that information is known, you will code the external cause with any diagnosis in the range of codes 800 through 999.
- You are to assign as many E codes as necessary to fully describe each cause of injury.

To locate the appropriate E code, you will use the Index to External Causes of Injury and Poisonings (E code), which you will find in Section 3 of Volume 2 of the ICD-9-CM manual. This section comes just before the Tabular List. Using the index to E codes is similar to using the Index of Diseases; you will locate the main term, followed by the subterm. Once you have a tentative code, you will turn to the E codes in the Tabular List to verify its accuracy. Let’s code an injury and include the external cause to give you some practice applying E codes.

SUBJECTIVE
A 10-year-old boy is seen in the physician’s office with a right-ankle injury. He was injured 24 hours ago when he fell down steps at home.

OBJECTIVE
Ankle appears erythematous and swollen. It is tender to the touch. Patient walks with a hint of a limp. X-ray rules out fracture.

ASSESSMENT
Patient has an ankle sprain.

PLAN
Recommend ibuprofen as needed for pain.
For this scenario, you will code the diagnosis, as well as how and where the injury happened. First, the diagnosis is the sprained ankle. Using the coding pathway of *Sprain, strain, ankle*, you find the tentative code of **845.00** in the *Index to Diseases*. Confirm that code in the *Tabular List*. Now, turn to the *Index to External Causes of Injury and Poisonings (E Code)* located in Section 3 of Volume 2 to code the how and where of the injury. The sequencing of E codes does not matter as long as the injury is the primary ICD-9-CM. To code how the injury occurred, locate *Fall, falling, down, stairs, steps* and you are directed to see *Fall, from, stairs*. This pathway suggests code **E880.9**. Now, to code where the injury happened, you locate *Accident (to), occurring (at) (in), house (private) (residential)*. The tentative code provided for this pathway is **E849.0**. You'll then turn to the *Tabular List* to confirm these codes. You will assign the following sequence of codes for this scenario: **845.00** *Sprains and strains of ankle and foot, Unspecified site*, **E880.9** *Fall on or from stairs or steps, Other stairs or steps* and **E849.0** *Place of occurrence, Home*.

Remember, you are to use E codes for injuries if the provider has requested that you do so. For your lessons in this program, you are not required to include E codes for injuries. If you would like to try your hand at using E codes to code external causes for codes 800 through 900 codes, that would be great practice for you. Just remember that in these circumstances you use E codes in addition to the required codes. Finally, you will include E codes for poisonings, adverse effects and when the *Tabular List* notes indicate that you are to identify the external cause.

Now it’s time to review what you’ve just learned about E codes and complete the following Practice Exercise. Then you’ll be ready to proceed to the review and Practicum.

### Step 7: Practice Exercise 29-2

Determine the correct ICD-9-CM code(s) for the following conditions.

1. **Patient fell from a skateboard while at the park, resulting in a sprained wrist.**
   - ICD-9-CM code:
   - ICD-9-CM code:
   - ICD-9-CM code:

2. **Passenger on railway suffers 3rd-degree burns to front and back of both legs, involving 33% TBSA, due to railway explosion.**
   - ICD-9-CM code:
   - ICD-9-CM code:
   - ICD-9-CM code:

3. **Two-car collision resulting in contusions of abdomen of passenger of second car**
   - ICD-9-CM code:
   - ICD-9-CM code:
4. Fractured distal radius due to falling at home.
   ICD-9-CM code:
   ICD-9-CM code:
   ICD-9-CM code:

**Step 8: Review Practice Exercise 29-2**

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

**Step 9: Practicum Preview**

Congratulations, you’ve made it through the entire *ICD-9-CM*! You now have the knowledge to be able to locate diagnostic codes. The past lessons contained an abundance of information pertaining to diseases. Not only did you learn about the diseases, but you are accustomed to the coding process as well! This material contains a variety of scenarios so that you will become familiar with coding situations. These scenarios give you real-life experiences coding the *ICD-9-CM* book from a physician’s dictation. When you code for a physician, only the ICD-9-CM codes are recorded. You will not record “NEC,” “NOS” or check marks. You will not write pathways or code descriptions. Only the ICD-9-CM code is necessary for diagnostic coding. This is the case for graded Quizzes as well, unless indicated otherwise. Now, let’s get started on this comprehensive material relative to the ICD-9-CM codes. Keep focused on the steps in coding. Remember the outpatient coding rules. Be sure you follow the sequencing guidelines provided. With these in mind, you’ll be able to code accurately with confidence!

**Step 10: Guidelines for Assigning Codes**

When you assign diagnostic codes to outpatient records, there are a few guidelines to consider as you code. The guidelines in this section will give you a checklist to review as you code. Familiarize yourself with these steps and keep them handy. Don’t worry about memorizing them, you will soon know the guidelines well enough that you will only need to refer to them occasionally.

**Steps for Assigning Diagnostic Codes**

1. Identify the main terms in the diagnostic statement.
2. Locate each main term in the *Index to Diseases* and read any notes that appear with the main term.
3. Refer to any subterms indented under the main term in the *Index to Diseases*.
4. Look at abbreviations, cross-references, symbols and brackets.
5. Choose the tentative code you find in the *Index to Diseases*, Volume 2, then locate and determine the highest level of specificity in the *Tabular List*, Volume 1.
6. Read and use any instructional terms in the *Tabular List* as a guide. Look for *Includes* and *Excludes*, notes and other instructional comments at the beginning of each chapter. Also, look at the three-digit code at the beginning of each category or group of codes that you are using within the chapter and check for additional instructions for the group.
Healthcare Documentation Program

7. Assign codes to their highest level of specificity, using the following guidelines:

- Assign three-digit codes only when there are no four-digit codes within that category.
- Assign a four-digit code only when there is no fifth-digit subdivision for that subcategory.
- Assign a fifth-digit to the code for any subcategory for which a fifth-digit subclassification is provided.
- Remember to continue coding the dictation until all elements are fully identified before assigning the code.

**Outpatient Coding Tips**

- If it is not documented, it did not happen.
- Do not assume anything.
- Terms such as possible, suspect, probable, rule out or consistent with are not assigned codes.
- Code symptoms only when a definitive diagnosis is not documented.
- Check with the physician if the information is unclear.

**Sequencing ICD-9-CM Codes**

The principal diagnosis reflects the current and most significant reason the patient is seeking treatment when you code a physician’s diagnosis of a patient. The ability to sequence the ICD-9-CM codes in the correct order is a learning process. A principal diagnosis is the condition that is responsible for the current episode of care.

Multiple Coding—Multiple coding means that two or more codes are necessary to fully describe the patient’s condition. The *Tabular List* provides instructions for multiple coding. “Use additional code” and “code first underlying disease” indicate another code is necessary and the sequence in which the codes are to be written. Turn in the *Tabular List* to code 652. The notes direct you to “code first any associated obstruction.” Which means code 660.0 is the principal diagnosis and the appropriate 652 code will be a coexisting condition.

Mandatory Codes—The slanted brackets in the ICD-9-CM indicate that you must use both codes and sequence them in the order listed. Let’s use diabetic cataracts as an example. Locate Diabetes, cataract in the *Index to Diseases* and you are provided 250.5  
[366.41]. You would list the codes 250.50 and 366.41 for this condition and sequence them in this order as well.

Combination Codes—When a single code describes conditions that frequently occur together, it is a combination code. An open wound of the finger with tendon involvement is coded with a single code of 883.2. Coding to the open wound of the finger and then coding tendon involvement as a separate code is not necessary.

Coexisting diagnosis codes should be related to the current episode of care. If the coexisting conditions have no bearing on the care of the principal diagnosis, they should not be coded. For example, a blind woman is diagnosed with a URI. Being blind has no impact on how the URI will be treated and is not coded as a coexisting condition.
Step 11: Practice Exercises 29-3, 29-4

Read the following SOAP reports to assign the appropriate ICD-9-CM code(s) for each dictation. Record the diagnostic code(s) in the space(s) provided.

Practice Exercise 29-3

SUBJECTIVE
Patient underwent exploratory laparotomy 3 days previously for bowel obstruction. There were 2 days of fever postoperatively. Today is the 3rd postoperative day.

OBJECTIVE
There is redness and swelling of the wound with pus emanating from around the suture material.

ASSESSMENT
Postoperative wound infection.

PLAN
Obtain culture of wound for E coli. Open wound, debride with acetic acid and pack with W-70 dressings. Prescription for cephradine 500 mg 1 p.o. q.6 h.

ICD-9-CM code:

Practice Exercise 29-4

SUBJECTIVE
This is a 56-year-old female with a history of type 2 diabetes for the past 4 years and has been using insulin long-term. She has noticed decreased vision in both eyes for the past year. She was seen in the eye clinic 2 weeks ago where fluorescein angiography revealed vitreous hemorrhages. The patient was scheduled for vitrectomy to extract the contents of the vitreous chamber.

OBJECTIVE
Ophthalmoscopy reveals proliferative retinopathy resulting in blood staining the vitreous humor. Tonometer reveals tension in both eyes is 14.

ASSESSMENT
Diabetic retinopathy.

PLAN
Vitrectomy. Maintain control of diabetes and blood pressure.

ICD-9-CM code:
Step 12: Review Practice Exercises 29-3, 29-4

Check your answers with the Answer Key at the end of this book. Correct any mistakes you may have made.

Step 13: Practice Exercises 29-5, 29-6

Read the following radiology reports to assign the appropriate ICD-9-CM code(s) for each dictation. Record the diagnostic code(s) in the space(s) provided.

Practice Exercise 29-5

TWO-VIEW CHEST X-RAY
No old films are available for comparison. Consolidation is present in the lower lobes bilaterally. A right-sided chest tube is present. There is a small amount of subcutaneous emphysema against the right chest wall. The most proximal portion of the chest tube lies within the margins of the rib cage.

IMPRESSION
1) Bilateral lower lobe pneumonia.
2) Right-sided chest tube. No significant pneumothorax is evident.

ICD-9-CM code:
Practice Exercise 29-6

LUMBAR SPINE MRI WITHOUT CONTRAST

HISTORY
Low back pain.

TECHNIQUE
Sagittal and axial proton density and T2-weighted sequences were obtained through the lumbar spine.

COMPARISON
April 30, 20XX plain film lumbar spine.

FINDINGS
Examination demonstrates normal alignment of the lumbar spine. The conus medullaris is located posterior to the L1 vertebral body. There is no evidence of abnormal signal within the lumbar vertebral bodies.

Disc spaces:
L1-L2: Unremarkable.
L2-L3: Unremarkable.
L3-L4: At this level, there is mild disc desiccation. There is a small left lateral disc protrusion. There is mild left neural foraminal stenosis. There is no significant right neural foraminal stenosis. There is no significant spinal stenosis.
L4-L5: At this level, there is minimal diffuse disc protrusion. This does not cause significant neural foraminal stenosis or spinal stenosis.
L5-S1: At this level, there is a small central disc protrusion. This does not cause significant neural foraminal stenosis or spinal stenosis.

IMPRESSION
Very mild lumbar spondylopathy. At the level of L3-L4, there is a left lateral disc protrusion.

ICD-9-CM code:

Step 14: Review Practice Exercises 29-5, 29-6

Check your answers with the Answer Key at the end of this book. Correct any mistakes you may have made.
Step 15: Practice Exercises 29-7, 29-8, 29-9

Read the following History and Physical Examination reports to assign the appropriate ICD-9-CM code(s) for each dictation. Record the diagnostic code(s) in the space(s) provided.

Practice Exercise 29-7

ORTHOPEDIC CONSULTATION REPORT

REASON FOR REFERRAL
Continuous pain, right ankle and foot.

HISTORY OF PRESENT ILLNESS
This patient has severe articular destructive disease in the right subtalar joint. She cannot walk because of continuous pain in the ankle and foot. Any inversion or eversion causes immediate severe discomfort. The patient has had long-standing, severe osteoporosis and rheumatoid arthritis. In addition, she has been on long-term steroid therapy. The patient has spontaneously fractured ribs with delayed healing.

PAST HISTORY
Medications: Long-term corticosteroid therapy for rheumatoid arthritis.
Currently, prednisone 40 mg daily p.o.
Illnesses: Rheumatoid arthritis, osteoporosis.
ALLERGIES: NO ALLERGIES TO FOOD OR MEDICATION.
Social history: The patient was employed as a plumber until the age of 50 when progressive arthritis limited her ability to continue working.
Family history: There is no family history of cancer, diabetes. A paternal uncle and a sister have RA.

REVIEW OF SYSTEMS
Cardiorespiratory: Pleuritic pain and dyspnea and focal pain over the left 4th, 5th and 6th ribs began 1 week ago spontaneously. No history of trauma.

PHYSICAL EXAMINATION
GENERAL: This is a 65-year-old, 180-pound white female in moderate distress. Pulse: 100 and regular.
Blood pressure: 140/110. Respiratory rate: 20, guarded. Temperature: 99.6 °F.
CHEST: There is pinpoint tenderness over the left 4th, 5th and 6th ribs in the left midaxillary line. Heart: PMI left midclavicular line. Regular rate and rhythm without murmurs. Lungs: Clear.
NEUROLOGIC: There is a decrease in sensation in the right ankle and foot. Cranial nerves 2-12 are intact.

DATABASE
A bone survey shows diffuse, widespread changes of rheumatoid arthritis with destruction of taloscaphoid axis and pronation of the right foot.

ASSESSMENT
1. Rheumatoid arthritis with severe destructive diseases of the subtalar joint, right ankle and foot.
2. Spontaneous pathologic fractures, left ribs 4-6.
3. Osteoporosis.
RECOMMENDATIONS
The severe pain and limitation of motion of right foot argues in favor of triple arthrodesis with bone graft from the right iliac crest to the right subtalar joint and transfer of the peroneal tendons of the right ankle. It is well known that the patient has severe osteoporosis and spontaneously fractured ribs. However, because of the severity of the destruction of the right ankle, arthrodesis is recommended at this time.

ICD-9-CM code:

ICD-9-CM code:

ICD-9-CM code:

ICD-9-CM code:

ICD-9-CM code:
Practice Exercise 29-8

CHIEF COMPLAINT
Follow-up on diabetes mellitus, status post cerebrovascular accident.

HISTORY OF PRESENT ILLNESS
This is a 70-year-old male who has no particular complaints other than he has discomfort on his right side. We have done EMG studies. He has noticed it since his stroke about 5 years ago. He has been to see a neurologist. We have tried different medications, and it just does not seem to help. He checks his blood sugars at home 2-3 x a day. He kind of adjusts his own insulin himself. Re-evaluation of symptoms is essentially negative.

PAST HISTORY
Habits: He has a past history of heavy tobacco and alcohol usage.
Medications: Refer to chart.
ALLERGIES: REFER TO CHART.

PHYSICAL EXAMINATION
GENERAL: A 70-year-old male who does not appear to be in acute distress but does look older than his stated age. He has some missing dentition.
SKIN: Dry and flaky.
CHEST: Cardiovascular: Heart tones are okay, adequate carotid pulsations. He has 2+ pedal pulse on the left and 1+ on the right. Lungs: Diminished but clear.
ABDOMEN: Scaphoid.
RECTAL: His prostate check was normal.
NEUROLOGIC: Sensation with monofilament testing is better on the left than it is on the right.

IMPRESSION
1. Diabetes mellitus, type 2 with long-term insulin.
2. Neuropathy.
3. Late effects of cerebrovascular disease.

PLAN
Refill his medications x 3 months. We will check a BMP. I have talked to him several times about a colonoscopy, which he has refused, and so we have been doing stools for occult blood. We will check a PSA. Continue with yearly eye exams, foot exams, Accu-Cheks, and we will see him in 3 months and p.r.n.

ICD-9-CM code:
EMERGENCY DEPARTMENT REPORT

HISTORY

CHIEF COMPLAINT
Pain and deformity of distal right forearm.

HISTORY OF PRESENT ILLNESS
The patient was in good health until today when he fell over a Doberman while walking down a sidewalk. He fell on his outstretched arm, resulting in severe pain and deformity of the distal right forearm.

PHYSICAL EXAMINATION
GENERAL: The patient appears in some distress with acute pain in the distal right forearm.
EXTREMITIES: There is palpable deformity over the distal radius with 1/5 opposition and strength in the right hand and 4+ swelling in the right wrist.

DATABASE
CBC and electrolytes are normal. X-ray confirms Colles fracture.

IMPRESSION
Colles fracture.

PLAN
Refer to orthopedic surgery clinic for reduction and immobilization. Right forearm sling and wrist immobilizer.

ICD-9-CM code:

Step 16: Review Practice Exercises 29-7, 29-8, 29-9

Check your answers with the Answer Key at the end of this book. Correct any mistakes you may have made.
Step 17: Practice Exercises 29-10, 29-11, 29-12

Read the following Operative reports to assign the appropriate ICD-9-CM code(s) for each dictation. Record the diagnostic code(s) in the space(s) provided.

Practice Exercise 29-10

PREOPERATIVE DIAGNOSIS
Persistent leukocytosis of unknown etiology.

POSTOPERATIVE DIAGNOSIS
Same, pending pathology.

PRIMARY PROCEDURE
Aspiration of bone marrow from right posterior iliac crest.

PROCEDURE
The patient was placed in a prone position. The posterior iliac crest was palpated, and the biopsy site was marked. A 26-gauge needle was used to inject 1% lidocaine solution subcutaneously. A 22-gauge needle was then used to infiltrate the deeper tissues with lidocaine. A #11 scalpel blade was used to make a 2 mm skin incision of the biopsy site. The bone marrow biopsy needle was firmly seated on the periosteum, advanced through the outer table of bone and into the marrow cavity with rotating motion and gentle pressure. It was advanced 2 mm. The stylet was removed, and a 10 mL syringe was attached to the needle hub. A brisk withdrawal of the plunger resulted in 2 mL of marrow aspiration. The site was observed for any excess bleeding, cleaned thoroughly with alcohol, and a gauze patch secured the site. The patient was in satisfactory condition with no operative complications noted.

ICD-9-CM code:

Practice Exercise 29-11

PREOPERATIVE DIAGNOSIS
Hemorrhoids.

POSTOPERATIVE DIAGNOSIS
Thrombosed internal hemorrhoids.

PRIMARY PROCEDURE
Hemorrhoidectomy.

PROCEDURE
The patient was taken to the operating room and placed in the prone position. A large internal hemorrhoid, which was significantly thrombosed, was palpated. After allowing adequate time for the anesthesia to take effect, the hemorrhoid was grasped with a clamp while another clamp was placed at the base of the hemorrhoid. The hemorrhoid was excised above the clamp, and a running stitch going in the opposite direction was looped over the clamp. The clamp was then removed, and the stitch was tightened. The area was dressed and packed with gauze. The patient tolerated the procedure well and was discharged to the postanesthesia care unit.

ICD-9-CM code:
Practice Exercise 29-12

PREOPERATIVE DIAGNOSIS
Medial and lateral meniscus tears, left knee.

POSTOPERATIVE DIAGNOSIS
Same.

PRIMARY PROCEDURE
Arthroscopy with Medial and Lateral MenisCectomies, Left Knee.

PROCEDURE
The patient was placed on the operating table in the supine position under general anesthesia, administered by the anesthesiologist. Arthroscopy was carried out beginning in the inferolateral portal.

After initial exploration, the medial compartment was explored. The arthroscopy exposed the meniscus which revealed a tear. The torn portion was removed with forceps.

Attention was then turned to the lateral compartment which also revealed a tear in the lateral meniscus. The torn portion was removed with forceps.

After completion of the meniscectomies, there were no other significant findings. Dressing was applied. The patient tolerated the procedure well and left the operating room in good condition.

ICD-9-CM code:

Step 18: Review Practice Exercises 29-10, 29-11, 29-12

Check your answers with the Answer Key at the end of this book. Correct any mistakes you may have made.

Step 19: Lesson Summary

Your diagnostic coding practice of health records is complete. If you are still feeling a little unsure of yourself, that's OK. As you review the Practice Exercise answers and compare them to your pathways, contact your instructor with any questions. The best way to determine why you didn't get to the correct code is to understand the pathway used. As you practice, you'll become faster and more proficient at coding. In Course Four, you'll begin with the CPT by studying its organization and how to use it. After you learn the basics of CPT coding, we'll incorporate ICD-9-CM coding so you'll be able to assign both diagnostic and procedure codes. Now, let's move on to the comprehensive ICD-9-CM Quiz!

Step 20: Quiz 21

Once you've mastered the course content, locate this Quiz in your Online Course or your Assignment Pack. Read and follow the Quiz instructions carefully.
You did it!

You completed all the chapters of the ICD-9-CM Tabular List.

Look to the future!

The final lesson in this course explains how technology is shaping the future of health care!

No need to wait for your Quiz results to move on to the next lesson.
Lesson 30
The Future of Health Care

Step 1: Learning Objectives for Lesson 30

When you have completed the instruction in this lesson, you will be trained to do the following:

- Discuss important trends in the electronic health record.
- Differentiate between encoders and autocoding.
- Summarize the pros and cons of electronic coding.
- Explain key concerns with remote coding.

Step 2: Lesson Preview

From experimental drugs and cutting-edge procedures to computers and the Internet, health care is changing. From the operating room to the front office, every level of medicine is undergoing a revolution. Why? What's driving this change? Technology! Technology is rewriting not only the rules of what is necessary, but what is possible.

In this lesson, we're going to look at how technology is shaping the future of health care. We'll focus on trends in electronic health records and examine what they mean for the healthcare document specialist. You'll learn about new and upcoming coding tools, such as encoders and computer-assisted coding. You'll also learn about the possibility of working from home with Web-based coding.

The healthcare profession is changing. Understanding those changes will help prepare you for success in the years to come.

Step 3: Technology and Health Care: Today

The goal of medicine is quality patient care. The backbone of patient care is health information management. Transcriptionists, coders, billers and administrators keep the gears of our health system spinning. Without them, providers wouldn't get paid; medical files couldn't be located; and the system would back up like a traffic jam.

Healthcare professionals, like yourself, are the unsung heroes of health care. They make sure the provider has the medical record when she's examining the patient. They make sure the patient doesn't overpay for services, supplies and advice. They keep an eye out to make sure the diagnosis, the procedure and the bill all match. All in all, they manage the massive amount of information needed by the healthcare industry.
In the past, a medical record was a thick paper file containing notes on all of your visits. Hospitals and physician offices maintained hundreds and thousands of these files which took up a lot of space and time. More importantly, files at one hospital could not easily be shared with another hospital. This was not only a matter of distance. Different providers often used different record formats and filing systems. When the healthcare industry was smaller, this was not a big deal. But now, with health care booming, patients, providers, insurance companies and the government all realize the drawbacks of the old paper system.

The healthcare industry is in the middle of a major shift. On one front they are slowly converting from paper medical files to electronic health records. Top to bottom they are learning to use computers in health information management.

**Health information exchange (HIE)** is the transmission of healthcare-related data among facilities, health information organizations and government agencies according to national standards.¹ The goal of HIE is to provide safe, timely, efficient and effective access to and retrieval of patient information for providers.

The Institute of Medicine (IOM) originally created the term **CPR (computer-based patient record)** to describe the computerized version of a medical record. The IOM defined the **CPR** as “an electronic patient record that resides in a system specifically designed to support users by providing accessibility to complete and accurate data,” with other uses, as well (IOM, 1997).

In 2003, the IOM report established eight core functions that a computer-based patient record should be capable of performing.²

1. **Health Information and Data.** The IOM determined that the electronic health record should contain the same items that are found in the paper chart, including problem lists, medications and test results. In addition, the IOM further stated that it should be a well designed interface to enable the provider to review the information efficiently.

2. **Result Management.** This function refers to accessing information easily when and where it is needed. The focus should be on availability, convenience, reliability and ease of use. The provider should be able to access lab or x-ray results any time and from anywhere.

   For example, Bonnie had severe pain in the bottom side of her heel for the past two days. The pain is localized to a single location. After exam, the provider has an x-ray taken to rule out a fracture or tumor. Bonnie has the x-ray taken onsite and returns to the exam room. Her provider returns and pulls the image up on her computer. The provider determines there is no sign of a fracture or mass, but suspects a bone spur is causing the pain. Bonnie is provided symptomatic care and is advised that a radiologist will review the x-ray as well, so she’ll be called the next day to confirm the diagnosis.

   In this case, the electronic health record allowed the provider to import the x-ray. However, the level of access should be considered as well. For instance, the dietitian and pharmacist do not require the same level of access to a patient record.
3. **Order Management.** Computerized entry and storage of data on all medications, tests and other services is an important function of a computer-based patient record. **Computerized provider order entry (CPOE)** refers to any system in which clinicians directly enter medication orders (and, increasingly, tests and procedures) into a computer system, which then transmits the order directly to the pharmacy. The advantages of CPOE include standardized, legible and complete orders, which will reduce medical errors.

4. **Decision Support.** This function of the electronic health record will alert providers and patients to vaccines, screenings and or preventative measures. In addition, it provides warnings and reminders to assist providers in making the decision in patient care. Decision support can aid in: drug interactions/ prescriptions/prevention, detection of disease outbreaks, evidence-based guidelines, etc.

5. **Electronic Communications and Connectivity.** This function focuses on patient safety and quality of care. It allows multiple providers in multiple setting to communicate and coordinate care.

6. **Patient Support.** Studies have found that home monitoring and educational materials are directly related to improving the control of a chronic illness, such as diabetes.

7. **Administrative Processes.** Providing better, timelier services to patients also helps the efficiency of a healthcare organization. Electronic health records also assist with billing and claims management. The provider can immediately validate insurance eligibility, as well as obtain authorizations. This function results in more timely payments and less paperwork.

8. **Reporting and Population Health Management.** Computer-based patient records provide a standardized system for reporting requirements for safety and quality that are necessary for state, federal and local entities.

---

**Step 4: Electronic Health Records**

When the IOM suggested the key functions in 2003, it also established the term electronic health record for this format. Let’s look at the alternative terms and requirements of an electronic health record.

**Electronic medical record**, or **EMR**, is another description that is widely used for this type of record. In hospital or office settings, EMR often refers to entire systems that are based on document imaging, or electronic document management systems as a whole. However, a more accurate term for the actual electronic record is **electronic health record**, or **EHR**. The health information management field generally recognizes the distinction between EMR and EHR as the degree of interoperability that each offers. For our purposes, an EHR is defined as follows, according to the Health Information Technology for Economic and Clinical Health (HITECH) component of the American Recovery and Reinvestment Act (ARRA) of 2009:

A **qualified EHR** “includes patient demographics and clinical health information, and has the capacity to provide clinical decision support; support physician order entry; capture and query information relevant to health care quality; and exchange electronic health information with and integrate such information from other sources.”

---
Certified EHR technology “gives assurance to purchasers and other users that an EHR system or module offers the necessary technological capability, functionality and security to help them meet the meaningful use criteria. Certification also helps providers and patients be confident that the electronic health IT products and systems they use are secure, can maintain data confidentially and can work with other systems to share information.”

Meaningful use generally describes the ability to demonstrate quality improvement through the use of EHRs. However, HITECH identifies three base requirements for meaningful use:

- Use of certified or qualified EHR technology.
- Electronic exchange of health information.
- Use of EHR in reporting on clinical and other quality measures.

The Certified Commission for Health Information Technology (CCHIT) is recognized by the U.S. Department of Health and Human Services as the entity to certify that EHRs support meaningful use.

To ensure meaningful use, data comparability standards are necessary. Data comparability standards make certain the meaning of a term is consistent across all users. Standard vocabulary helps achieve data comparability. Until recently, the specific vendor that developed the EHR software established most vocabularies. However, HITECH requirements demand the use of controlled vocabulary to allow for electronic exchange of health information. Controlled vocabulary means that a specific set of terms in the EHR’s data dictionary must be used.

Providers may use different terms that mean the same thing. For instance, one provider may document a heart attack, while another indicates an MI, and still another notes a myocardial infarction. While these terms mean the same thing to a cardiologist, they are entirely different to a computer. Without standard terminology, it’s difficult to gather and retrieve information for research. Controlled vocabulary allows users to index, store and retrieve information from an EHR.

The National Committee on Vital and Health Statistics (NCVHS) was asked to recommend a national standard for vocabulary use in an EHR. The NCVHS recommended that the federal government use the following “core set” of terminologies:

- SNOMED CT—Systematized Nomenclature of Medicine - Clinical Terms
- LOINC—Logical Observation Identifiers Names and Codes
- RxNorm—federal drug terminologies

SNOMED CT presents data in a completely machine-readable format. While the ICD coding database was designed for billing and reimbursement, SNOMED CT is meant to organize the contents of a medical record to capture, encode and use data for clinical care of patients and research. Due to the controlled vocabulary, SNOMED CT can increase quality of care because it allows more accurate descriptions of a patient’s medical issues in words physicians understand and doesn’t cross into the administrative interpretations of diagnosis codes that are more familiar to coding staff.

Health Level Seven (HL7) develops specifications for electronic healthcare information. HL7’s mission is to increase the effectiveness and efficiency of healthcare information.
HL7 standards identify types of errors and corrections in an electronic medical record. HL7 has created computer messages to communicate corrections to different computer systems. Let’s take a look at a couple of scenarios:

1. To create an addendum: Author dictates additional information as an addendum to a previously transcribed document. A new document is transcribed. This addendum has its own unique document ID that is linked to the original document via the parent ID. Addendum document notification is transmitted. This creates a composite document.

2. To correct errors that were discovered in the original health document that haven’t been made available for patient care: Errors, which need to be corrected are discovered in a document. The original document is edited, and an edit notification is sent.

One variation of the EHR is the personal health record (PHR), which is medical information that the patient maintains. The PHR puts control in the consumer’s hands. Instead of being a tool for the provider, the health record will become a tool for the patient. In the future, people will have more responsibility for their own well-being. Insurance companies are not the only ones pushing for a shift from doctor as repairman to doctor as coach. Many people see the benefits of healthy living and preventative medicine. The fitness and nutrition industry is growing. So is interest in alternative medicines such as acupuncture and chiropractics. Knowledge is power. Taking personal responsibility for your own health is the first step in the fight against death, disease and aging. Personal health records will be valuable weapons in this fight.

Now, you’ll learn about different types of Internet connections and networks.

### Step 5: Access the Internet and the Web from a Computer

OK, you have a computer and a Web browser; you’re viewing Web sites left and right. But how exactly does it happen that these Web pages appear in your browser?

The Internet does not exist in one location. It exists in shared locations between hundreds of millions of computers, servers and networks. For example, Erik in Denmark may publish the photographs he took on his recent trip to Thailand. Xing Mao in China may publish statistics on the ratios of female and male children that families in the United States adopt. And Gabriela in Chile may publish a daily blog (short for Web log, which is like an online diary) that describes her life in South America, including sales information for the handmade products from her alpaca, sheep and goat farm.

So where is all of this information? Well, remember that each of these Web pages is published on the World Wide Web, which exists on the Internet. You, Erik, Xing Mao and Gabriela can view these Web pages—and all the others that people everywhere write—anytime you want, as long as you have access to the Internet.

Before you learn about the computer network, let’s look at the language of the Internet. Many know that HTML (Hypertext Markup Language) was designed to display data and is the most widely used language for Web-based documents. A document using HTML contains embedded tags that provide guidance to HTML viewers (usually called Web browsers) as to how to display the document and connect it to other documents. HTML has its advantages and disadvantages:
Basically, the HTML format is not interoperable, which means that data cannot be shared across organizations. EHRs don’t just “contain” or transmit information, they also compute with it—for example, a qualified EHR will not merely contain a record of a patient’s medications or allergies, it will also automatically check for problems whenever a new medication is prescribed and alert the clinician to potential conflicts. HTLM is unable to compute. XML (Extensible Markup Language) was designed to overcome this limitation, which improves the functionality of the Web by letting you identify your information in a more accurate, flexible and adaptable way. XML is the language of EHRs.

### The Computer Network

To access the information on the Internet, your computer must be part of a network. A network is a system of computers and/or servers, printers and databases that communications lines connect. All computers, servers, printers or databases connected to one network are called nodes. All nodes have the means to share information and communicate with one another.

### Types of Networks

Networks exist so that different computers can rely on one another to perform functions like storing, sending and retrieving information.

#### Network Diagram

To access the information on the Internet, your computer must be part of a network.
There are four basic types of computer networks.

1. **Client/Server Network**—One or more computers (called clients) are connected to one another and to a central computer or mainframe (called a server). We'll talk about servers in more detail in a moment, but first, let's look at an example of a client/server network.

   A manufacturing plant in Michigan makes engines for hybrid vehicles. All of the conveyer belts that move the engines throughout the plant are connected to a central computer. Based on signals from other, smaller computers at different workstations, the central computer knows how fast or how slow to run the conveyer belts. It even knows when to turn the conveyer belts off if there is an emergency or a breakdown in one area of the plant. These computers are on a client/server network.

2. **Peer‑to‑Peer Network**—Two or more computers are connected to one another and share information without the presence of a server.

   Let’s say that Cody and Ben are college roommates, and both young men use Mac Book laptops with iTunes and iPods. Cody has a great collection of more than four thousand listening hours of Classic Rock, Pop and Indie Rock music, while Ben has a substantial amount of rare Jazz and Blues recordings. They’ve decided to set up a peer-to-peer network so they can easily share music files without violating copyright laws.

3. **LAN Network**—LAN stands for **local area network**. Such a network consists of one or more computers in a home or office that are connected to one another and a server. They are a self-contained network with a gateway or link to the Internet. Let’s study an example.

   Martin is a freelance graphic designer and avid photographer who runs his own business from the comforts of his home office. Martin uses three printers, a copier, a laptop computer and a large desktop computer with a huge flat screen monitor for his work. Meanwhile, his wife owns a laptop, and his daughters share a desktop computer and printer in their bedroom. Martin and his family’s computers all have Internet access, and they are connected to one server (and one back up server) that he keeps in the basement. This arrangement is an example of a LAN.

4. **WAN Network**—WAN stands for **wide area network**. Such a network consists of two or more LANs in several different buildings that are connected to one another.

   An example of a WAN might be an international broadcasting company that has offices in the United States, Canada, Panama, Brazil, Great Britain, Germany, France, Spain, Poland, Saudi Arabia, Sri Lanka, South Korea, the Philippines and New Zealand. Each of these offices contain multiple LANs, but the LANs are connected into a larger WAN to facilitate faster e-mail communication and to share full access to photographic images and video footage database files.
**Servers**

A server is a data resource that other computers access for information. Some people call a server a host computer, and that analogy works well when you think about the functions a server performs. For example, when you host a party, you make introductions among your guests. You refill the drinks, make important announcements and manage the music or overall atmosphere at the party. A server operates in much the same way. Since the server is a host to the computers attached to its network, the server relays information, transfers files, delivers programs and awaits and fulfills the requests of its client computers.

**Step 6: Electronic Coding**

Electronic coding uses computers to speed up the coding process. As technology develops, more and more computers will be used in coding. While this may alter some of your responsibilities, it is important to know everything you’re learning in this program. With more computers helping in the health information department, healthcare document specialists will act more as editors to the computer’s coding.

There are several different levels of electronic coding: encoder programs, computer-assisted coding and NLP autocoding. Let’s take a look at each.

**Encoder Programs**

An encoder is an interactive computer program that helps you assign codes. With this program, the user inserts a keyword and then selects different sections, subsections, headings, subheadings and code listings related to that keyword. Think of this type of encoder as a computer-version of your ICD-9-CM, ICD-10-CM, CPT and the HCPCS manual, all rolled into one. This encoder assists you in navigating your codes quickly and with the click of a button. You will receive a demonstration CD-ROM of one of these encoders with Course Four. You’ll also receive a supplement showing you how to use it like a pro.

However, using an encoder program doesn’t mean you don’t need to be familiar with coding rules and the manuals. You need to have a clue to locate the accurate code! For many coders, the encoder program is more useful as a verification tool. For example, let’s say you’re looking up the code for abdominal pain. If you use this as the basis for your encoder search, you are likely to get so many potential codes that you’ll have a hard time narrowing it down to the right one.

One of the benefits of using encoders is efficiency. And when it comes to coding, efficiency equals money.
Look at the following example. Search for *Abdominal pain*, and the encoder program retrieved several code categories.
Let's narrow down our search. If you already know that the code for abdominal pain is 789.0, you can use the encoder to fine-tune your search. Here's an example using the encoder in that way.

![Encoder Pro software interface](image)

- **ICD-9 Vol. 1**: Set to 789.0
- **Code Detail**
  - **Other symptoms involving abdomens and pelvis**
    - **Includes**:
      - Female: 023.0-032.9
      - Male: 043.7-063.9
      - Perineal: 076.0-076.3
      - Symptoms referable to genital organs
  - **Abdominal pain**
    - **Excludes**:
      - Perineal: 076.0-076.3
      - Abdominal pain, unspecified site: 789.00
      - Abdominal pain, right upper quadrant: 789.01
      - Abdominal pain, left upper quadrant: 789.02
      - Abdominal pain, right lower quadrant: 789.03
      - Abdominal pain, left lower quadrant: 789.04
      - Abdominal pain, periumbilical: 789.05
      - Abdominal pain, epigastric: 789.06
      - Abdominal pain, generalized: 789.07
      - Abdominal pain, other specified site: 789.09

- **Fifth Digit Code Required**
Computer-assisted Coding

After encoders, the next level of technology is computer-assisted coding (CAC). CAC uses a computer to assign an actual code. Whereas an encoder determines the best code, a computer-assisted program is programmed to pick codes itself. The computer can do this in one of two ways: by using inputted information or by finding the diagnosis and procedure in the chart itself. Let’s examine how each of these methods work.

The most common automated coding systems require a user to input data. The user will read a medical chart and figure out the diagnoses and the procedures. Next she will type this information into the computer-assisted program. The computer uses logic and coding rules programmed into its memory to code the diagnoses and the procedures. Of course, this system isn’t perfect. CAC programs are not advanced enough to handle rules which can be interpreted in several different ways. As you’ve learned with your ICD-9-CM coding, not all codes are black and white. However, CAC software can draw the user’s attention to any codes it has trouble with. This is where you, the healthcare document specialist, come in!
The second type of CAC software is much more advanced than the first. Some medical providers use a software called natural language processing (NLP), which can read and translate English. Instead of having to input the diagnoses and procedures to be coded, the entire medical chart can be uploaded into the NLP autocoder. This program will read the chart, pick out the diagnoses and procedures, and then assign the appropriate code.

But how accurate is it? Today, NLP technology is not advanced enough to rival the accuracy of an experienced, human coder. However, NLP software is getting better. Instead of using a rigid set of rules to program the computer-assisted coding, NLP uses complex statistical methods to predict how an experienced human would code the information. Using statistics gives NLP autocoders flexibility, as well as the ability to improve. Like a human, the more the NLP software translates and codes, the better it gets. Like standard computer-assisted programs, NLP software can alert the user when it is unsure about a code. In fact, because it uses statistics, it can say exactly how unsure it is.

But NLP technology isn't perfect. There is more to coding than just connecting the dots, as you now know. While the NLP autocoding software companies are touting their programs as the next wave in health information management, not everyone is so sure. Many providers are skeptical and question just how valid the programs are. It doesn't matter how fast the programs are if they aren't accurate enough.

What does computer-assisted coding mean for the healthcare document specialist? Will they be replaced by computers? The answer is no, although there will be some changes. Computers will eventually take over much of the manual work of assigning simple codes and transcribing basic medical reports. Computer-assisted coders will zip through the easy and routine codes. However, healthcare professionals will still be needed to tackle all of the challenging reports which stump the computer. And with medicine constantly evolving, there will always be plenty of exciting and new charts to code.

In addition, healthcare document specialists may be responsible for managing these programs and their coded data. They may be in charge of quality-control, security, and monitoring the regular additions, deletions, and changes to the code sets. It is an exciting time to be a healthcare document specialist. You're getting in on the first wave of a whole new system!

Step 7: Web-based Medical Records

One of the advantages of being a healthcare document specialist is that you may work from home. With Web-based medical records, the medical record is an encrypted file so unauthorized people can't read it and e-mails it to a secure computer server. The chart is given a digital certificate. A digital certificate is like an electronic lock. Only the person with the right electronic key—such as a password—can open it. When a chart is stored on the server and assigned to a healthcare document specialist, it is given a digital certificate that only that healthcare document specialist can open.

You can either work with the medical chart while it is saved on the server, or you may download the file and work with it after disconnecting from the Internet. The latter is more secure because there are less opportunities for hackers to break in and view the information. Once you're done, you e-mail the chart back to the server and delete the information from your computer.
Here’s an example of how Web-based medical records may look like through an Internet connection.

Security is a very important issue for Web-based medical records. This is especially true with all of the security guidelines mandated by HIPAA. In addition to encryption and digital certificates, physical security is important. The computer you use for home coding shouldn’t be used for non-work activities (like Internet shopping). The system should be protected by a password, and others should not have access to it. Some remote companies and agreements stipulate that management can inspect the home office at any time to ensure that security is being maintained.

Now, let’s review what you’ve learned with a Practice Exercise.

**Step 8: Practice Exercise 30-1**

Determine five trends in the technology of health care.

1. 
2. 
3. 
4. 
5.
Step 9: Review Practice Exercise 30-1

Check your answers with the Answer Key at the back of this book. Correct any mistakes you may have made.

Step 10: Lesson Summary

Computers are revolutionizing health care. With electronic health records, they’re helping ensure consistent, quality care. With personal health records, computers empower people to manage their own health. On the coding front, they improve accuracy with encoders and speed with computer-assisted coding (CAC) programs. Natural language programming (NLP) will free healthcare document specialists up to focus more on managing medical information. The Internet allows more and more people to work safely and efficiently from home. All in all, computers are the future. The change to a fully-electronic health information system will be slow. But it will come, and health care will never be the same. And you will be on the front line of this exciting technology!

Wow! You covered the entire ICD-9-CM in this course! Now, not only to you understand medical terminology and the insurance process, but you’re able to accurately code the diagnosis to real-world scenarios. That’s quite an accomplishment and you should be very proud; we certainly are!

Don’t stop now—Course Four awaits! In the next course you’ll learn the other side of medical coding—procedural coding. After learning the organization of the CPT, we’ll walk you through the sections of the manual. You’ll encounter descriptions of the sections, code procedures and read through medical reports to determine the correct procedure code. We’ll cover surgery, radiology, pathology, anesthesia and medicine. Then we’ll bring back the diagnostic coding to show how the two coding systems relate to each other. Next, you’ll learn how to apply the most common CPT code—Evaluation and Management. Finally, we’ll discuss the HCPCS manual, which is used for supplies and drugs, among other things.

Now, complete the Quiz to demonstrate your understanding of the future of health care. Then, you’re ready to begin the next course in the Healthcare Document Specialist program!

Step 11: Quiz 22

Once you’ve mastered the course content, locate this Quiz in your Online Course or your Assignment Pack. Read and follow the Quiz instructions carefully.

Endnotes

9. Fluckinger, Don. “SNOMED CT will be coming to EHR systems and patient records near you.” TechTarget. n.d. 10 April 2012.
Congratulations!
You’ve completed Course Three.

Accurate and complete ICD-9-CM codes ensure maximum reimbursement to the provider. You’ve learned the foundation of ICD-9-CM coding and can confidently assign codes to real-world scenarios.

Take the next step to coding!

The next course in your Healthcare Document Specialist program focuses on procedural coding.

Continue to Course Four.
Lesson 22

Practice Exercise 22-1

1. **Certified Coding Specialists** (CCS) are skilled professional coders with solid experience classifying medical data from patient records.

2. **AHIMA** is recognized as one of the industry’s most active and influential advocates in Congress.

3. The **Certified Billing and Coding Specialist** (CBCS) exam focuses on converting a medical procedure and diagnosis into specific codes for submitting a claim for reimbursement.

4. The AMA speaks out on important issues like **patient rights** and the health of the nation.

5. The **CPC** exam tests the student on diagnostic and procedural codes, compliance and reimbursement policies.

6. In addition to coding the diagnosis and procedures for outpatient settings, the **CPC-H** exam also focuses on reimbursement procedures, such as fee updates and how to complete the UB-04.

7. The goal of the **AAPC** is to provide education, recognition, and certification for physician-practice procedural coders.

8. **CCS-P** coders have in-depth experience with diagnostic and procedural codes. They also are experts in health information documentation.

9. To qualify for the **CMT** exam, you should have at least two years of acute care medical transcription experience.

10. The **RMT** exam tests you on MT knowledge and your transcription performance.
Practice Exercise 22-2

1. *BillingInsider* AAPC
2. *CPT Assistant* AMA
3. *Coding Clinic* AHA
4. *Coder’s Desk Reference for Diagnoses* OptumInsight
5. *Communities of Practice* AHIMA
6. *Coder’s Desk Reference for Procedures* OptumInsight
7. *Coding Edge* AAPC
8. *Plexus* AHDI

Lesson 23

Practice Exercise 23-1

1. The ICD originally was used to track **b. mortality statistics**.

2. The *Bertillon Classification of Causes of Death* was first used in the Americas in which country? **c. Mexico**

3. In 1946, the United Nations gave the responsibility for the ICD to the **a. World Heath Organization**.

4. The United States adopted the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM), based on the ICD-9, in **d. 1979**.

5. The ICD-9-CM consists of a(n) **d. tabular list, alphabetical index and procedure alphabetic index and tabular list**.

6. A primary use of medical codes is to **communicate** to the insured the reason for a patient’s medical visit.

7. Medical coding is a **statistics-gathering tool** for research, grants and financial analysis.

8. The ICD-9-CM outdated codes produce **inaccurate and limited data**.
Practice Exercise 23-2

1. The *ICD-9-CM for Physicians* manual is divided into **b. two** volumes.

2. The *ICD-9-CM for Physicians* manual lists **d. diagnostic** codes.

3. Main terms appear in **b. boldface** type.

4. Information in parentheses following a main term is called a(n) **a. nonessential modifier**, and it has no effect on selecting the correct code.

5. The **d. Tabular List** uses a numerical index cross-referenced with diseases and injuries according to the anatomical system affected and/or etiology.

6. A healthcare document specialist must assign the most **c. specific** code possible—a subcategory, if it is available.

7. Supplementary classifications might be **a. V or E codes.**

8. **b. Residual** classifications ensure that there is always a code for every disease.

Practice Exercise 23-3

1. When a diagnosis is not principal and is used alone, you should code the **b. underlying disease** first.

2. ICD-9-CM coding uses the **[INCLUDES]** and **[EXCLUDES]** instructional notes to assist healthcare document specialists in assigning diagnostic codes at the **c. highest** level.

3. Notes, when found in the *Index to Diseases*, are **a. boxed and italicized.**

4. In the multiple coding instruction, “Use additional code, if desired,” you should ignore the words **d. if desired.**

5. NEC means **b. not elsewhere classifiable.**

6. NOS means **c. not otherwise specified.**

7. A note might instruct you to assign a(n) **d. fifth** digit because subclassification categories are available.
Practice Exercise 23-4

1. An object not naturally occurring in the human body is a. **a foreign body**.

2. A late effect is defined as a(n) d. **residual** effect after the acute phase of an illness or injury has ended.

3. c. **Study of tumors** Appendix A

4. d. **Was deleted in 2004** Appendix B

5. a. **Drug classification** Appendix C

6. e. **Job-related accidents** Appendix D

7. b. **Three-digit categories** Appendix E

Practice Exercise 23-5

1. The first step in ICD-9-CM coding is to identify all c. **main terms**.

2. Assign codes to their b. **highest** level of specificity.

3. When you assign codes for an outpatient or inpatient diagnosis, the c. **principal diagnosis** is the first code sequenced.

4. Do not assign codes for a. **rule-out** statements in outpatient settings.

5. Urinary tract infection
   Main term  infection
   Subterm    urinary (tract)
   Coding pathway  infection, urinary (tract)

6. Recurrent appendicitis
   Main term  appendicitis
   Subterm    recurrent
   Coding pathway  appendicitis, recurrent

7. Unknown pain in leg
   Main term  pain
   Subterm    leg
   Coding pathway  pain, leg
8. Diaper rash
   Main term           rash
   Subterm            diaper
   Coding pathway     rash, diaper

9. Loss of appetite
   Main term           appetite
   Subterm            lack or loss
   Coding pathway     appetite, lack or loss
                         Alternative Answer:
        loss, appetite

10. Inflammation of the sinus
    Main term           inflammation
    Subterm            sinus
    Coding pathway     inflammation, sinus

11. High-altitude sickness
    Main term           sickness
    Subterm            altitude
    Coding pathway     sickness, altitude

12. Vision examination
    Main term           examination
    Subterm            vision
    Coding pathway     examination, vision

13. Ear examination
    Main term           examination
    Subterm            ear
    Coding pathway     examination, ear
Lesson 24

Practice Exercise 24-1

1. **005.9**
   Coding pathway: Poisoning, food 005.9
   *Tabular List* description: 005.9 Food poisoning, unspecified

2. **011.04**
   Coding pathway: Tuberculosis, pulmonary, infiltrative 011.0
   Fifth-digit subclassification: 4= tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture
   *Tabular List* description: 011.04 Tuberculosis of lung, infiltrative, tubercle bacilli not found (in sputum) by microscopy, but found by bacterial culture.

3. **021.9**
   Coding pathway: Fever, rabbit 021.9
   Alternative pathway: Rabbit fever 021.9
   *Tabular List* description: 021.9 Unspecified tularemia

4. **033.9**
   Coding pathway: Pertussis—see also Whooping cough 033.9
   *Tabular List* description: 033.9 Whooping cough, unspecified organism

5. **038.3**
   Coding pathway: Septicemia, Bacteroides 038.3
   *Tabular List* description: 038.3 Septicemia due to anaerobes
   *Note: use additional code for SIRS but SIRS or sepsis not noted so no additional code needed.*

6. **042 136.3**
   Coding pathway: AIDS 042
   *Tabular List* description: 042 Human immunodeficiency virus [HIV] disease
   Coding pathway: Pneumonia, Pneumocystis (carinii) 136.3
   *Tabular List* description: 136.3 Pneumocystosis
7. Coding pathway: Septicemia, gram-negative **038.40**
Coding pathway: SIRS (systemic inflammatory response syndrome) due to, infectious process **995.91**
Practice Exercise 24-2

1. 049.9
   Coding pathway: Encephalitis, viral 049.9
   *Tabular List description: 049.9 Unspecified non-arthropod-borne viral diseases of central nervous system*

2. 050.2
   Coding pathway: Varioloid 050.2
   *Tabular List description: 050.2 Modified smallpox*

3. 055.2
   Coding pathway: Measles, with, otitis media 055.2
   *Tabular List description: 055.2 Postmeasles otitis media*

4. 056.9
   Coding pathway: Measles, German 056.9
   *Tabular List description: 056.9 Rubella without mention of complication*

5. 066.40
   Coding pathway: Fever, West, Nile 066.40
   *Tabular List description: 066.40 West Nile fever, unspecified*

6. 071
   Coding pathway: Rabies 071
   *Tabular List description: 071 Rabies*

7. 074.3
   Coding pathway: Disease, hand, foot and mouth 074.3
   *Tabular List description: 074.3 Hand, foot and mouth disease*

8. 088.81
   Coding pathway: Disease, Lyme 088.81
   Alternative pathway: Lyme disease 088.81
   *Tabular List description: 088.81 Lyme disease*

9. 057.0
   Coding pathway: Disease, fifth 057.0
   *Tabular List description: 057.0 Erythema infectiosum [fifth disease]*
Practice Exercise 24-3

1. **093.9**
   Coding pathway: Syphilis, cardiovascular (early) 093.9
   *Tabular List* description: 093.9 Cardiovascular syphilis, unspecified

2. **098.11**
   Coding pathway: Cystitis, gonococcal (acute) 098.11
   *Tabular List* description: 098.11 Gonococcal cystitis (acute) upper

3. **110.4**
   Coding pathway: Infection, fungus, foot 110.4
   *Tabular List* description: 110.4 Dermatophytosis, Of foot

4. **114.0**
   Coding pathway: Fever, desert 114.0
   *Tabular List* description: 114.0 Primary coccidioidomycosis (pulmonary)

5. **126.9**
   Coding pathway: Disease, hookworm 126.9
   *Tabular List* description: 126.9 Ancylostomiasis and necatoriasis, unspecified

6. **133.0**
   Coding pathway: Scabies (any site) 133.0
   *Tabular List* description: 133.0 Scabies
7. Coding pathway: Human immunodeficiency virus, infection **V08**
   Coding pathway: Hepatitis, viral, type C, chronic **070.54**

### HEALTH INSURANCE CLAIM FORM

**APPROVED BY NATIONAL UNIFORM CLAIM COMMITTEE 08/05**

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Status</td>
<td>1227 COMET DRIVE APT 6B</td>
</tr>
<tr>
<td>Patient Relationship to Insured</td>
<td>Self</td>
</tr>
<tr>
<td>Patient's Address</td>
<td>SPRINGTOWN CO 80002</td>
</tr>
<tr>
<td>Insured's Address</td>
<td>1801 SW VINE ST DENVER, CO 80217</td>
</tr>
<tr>
<td>Insured's Name</td>
<td>FOX BENJAMIN</td>
</tr>
<tr>
<td>Employer's Name or School Name</td>
<td>MOUNTAIN STATES</td>
</tr>
<tr>
<td>Employer's Address</td>
<td>1200 COMET DRIVE APT 6B</td>
</tr>
<tr>
<td>Insured's Name</td>
<td>JAMES HAHNS MD</td>
</tr>
<tr>
<td>Insured's Address</td>
<td>800 MEDICAL COURT DENVER, CO 80217</td>
</tr>
<tr>
<td>Insured's Policy Group or FECA Number</td>
<td>MOUNTAIN STATES</td>
</tr>
<tr>
<td>Insured's Policy Group or FECA Number</td>
<td>MOUNTAIN STATES</td>
</tr>
</tbody>
</table>

**Signature on File**

- **Date**: 06/14/XX
- **Signed**: JAMES HAHNS MD
- **Telephone**: (970) 5551001
- **ZIP Code**: 80002

**Diagnosis or Nature of Illness or Injury**

- **V08**: Human immunodeficiency virus, infection

**Procedures, Services, or Supplies**

- **070.54**: Hepatitis, viral, type C, chronic

**Billing Information**

- **Provider ID**: NPI
- **Service Facility Location Information**: 800 MEDICAL COURT
- **Provider**: JAMES HAHNS MD
- **Address**: 800 MEDICAL COURT
- **City**: DENVER
- **State**: CO
- **ZIP Code**: 80217
- **Telephone**: (970) 5552222

**Other Insured's Name**

- **Last Name**: FOX
- **Middle Initial**: B
- **First Name**: BENJAMIN
- **Relationship to Insured**: Self

**Other Insured's Address**

- **City**: SPRINGTOWN
- **State**: CO
- **Zip Code**: 80002
- **Telephone**: (970) 5551001

**Other Insured's Policy Group or FECA Number**

- **08/05**: MOUNTAIN STATES

**Other Insured's I.D. Number (For Program in Item 1)**

- **DM**: 070.54

**Other Insured's Address**

- **City**: SPRINGTOWN
- **State**: CO
- **Zip Code**: 80002
- **Telephone**: (970) 5551001

**Other Insured's Name**

- **Last Name**: FOX
- **Middle Initial**: B
- **First Name**: BENJAMIN

**Other Insured's Policy Group or FECA Number**

- **DM**: 070.54

**Other Insured's I.D. Number (For Program in Item 1)**

- **DM**: 070.54

**Other Insured's Address**

- **City**: SPRINGTOWN
- **State**: CO
- **Zip Code**: 80002
- **Telephone**: (970) 5551001

**Other Insured's Name**

- **Last Name**: FOX
- **Middle Initial**: B
- **First Name**: BENJAMIN

**Other Insured's Policy Group or FECA Number**

- **DM**: 070.54

**Other Insured's I.D. Number (For Program in Item 1)**

- **DM**: 070.54

**Other Insured's Address**

- **City**: SPRINGTOWN
- **State**: CO
- **Zip Code**: 80002
- **Telephone**: (970) 5551001

**Other Insured's Name**

- **Last Name**: FOX
- **Middle Initial**: B
- **First Name**: BENJAMIN

**Other Insured's Policy Group or FECA Number**

- **DM**: 070.54

**Other Insured's I.D. Number (For Program in Item 1)**

- **DM**: 070.54

**Other Insured's Address**

- **City**: SPRINGTOWN
- **State**: CO
- **Zip Code**: 80002
- **Telephone**: (970) 5551001
Practice Exercise 24-4

1. **191.0**
   Coding pathway: Glioma, specified site NEC—see Neoplasm, by site, malignant
   New pathway: Neoplasm, cerebrum, Malignant, Primary 191.0
   Tabular List description: 191.0 Malignant neoplasm of brain, Cerebrum, except lobes and ventricles

2. **198.3 162.9**
   Coding pathway: Carcinoma—see also Neoplasm, by site, malignant
   New pathway: Neoplasm, brain NEC, Malignant, Secondary 198.3
   Tabular List description: 198.3 Secondary malignant neoplasm, Brain and spinal cord
   Coding pathway: Neoplasm, lung, Malignant, Primary 162.9
   Tabular List description: 162.9 Malignant neoplasm of trachea, bronchus and lung, Bronchus and lung, unspecified

3. **201.20**
   Coding pathway: Hodgkin's, sarcoma 201.2 ✓
   Alternative pathway: Sarcoma, Hodgkin's 201.2 ✓
   Fifth-digit subclassification: 0 = unspecified site, extranodal and solid organ sites
   Tabular List description: 201.20 Hodgkin's sarcoma, unspecified site, extranodal and solid organ sites

4. **216.4**
   Coding pathway: Neoplasm, scalp, Benign 216.4
   Tabular List description: 216.4 Benign neoplasm of skin, Scalp and skin of neck

5. **218.9**
   Coding pathway: Fibromyoma, uterus 218.9
   Tabular List description: 218.9 Leiomyoma of uterus, unspecified

6. **151.5**
   Coding pathway: Adenocarcinoma—see also Neoplasm, by site, malignant
   New pathway: Neoplasm, gastric—see Neoplasm, stomach
   New pathway: Neoplasm, stomach, lesser curvature, Malignant, Primary 151.5
   Tabular List description: 151.5 Malignant neoplasm of stomach, Lesser curvature, unspecified
   Note: the type of biopsy helps determine the site of the neoplasm.
Practice Exercise 24-5

1. 244.0
   Coding pathway: Hypothyroidism, postsurgical 244.0
   *Tabular List* description: 244.0 Acquired hypothyroidism, Postsurgical hypothyroidism

2. 250.33
   Coding pathway: Diabetic, coma, hypoglycemia 250.3
   Alternative pathway: Hypoglycemia, coma, diabetic 250.3
   Fifth-digit subclassification 3 = type 1, uncontrolled
   *Tabular List* description: 250.33 Diabetes with other coma, type 1, uncontrolled

3. 252.01
   Coding pathway: Hyperparathyroidthism, primary 252.01
   *Tabular List* description: 252.01 Primary hyperparathyroidism

4. 256.4
   Coding pathway: Polycystic, ovary, ovaries 256.4
   *Tabular List* description: 256.4 Polycystic ovaries

5. 274.00
   Coding pathway: Gouty, arthropathy 274.00
   Alternative pathway: Arthropathy, gouty 274.00
   *Tabular List* description: 274.00 Gouty arthropathy

6. 282.62
   Coding pathway: Disease, sickle cell, with, crisis 282.62
   *Tabular List* description: 282.62 Sickle-cell disease, Hb-SS disease with crisis

7. 289.4
   Coding pathway: Syndrome, big spleen 289.4
   Alternative pathway: Big spleen syndrome 289.4
   *Tabular List* description: 289.4 Hypersplenism
### 8. Coding pathway: Hypercalcemia 275.42

Coding pathway: Cancer—*see also* Neoplasm, by site, malignant

New pathway: Neoplasm, thyroid, Malignant, Primary 193
Lesson 25

Practice Exercise 25-1

1. **291.0**
   Coding pathway: Delirium, alcoholic 291.0
   
   Tabular List description: 291.0 Alcohol withdrawal delirium

2. **295.20**
   Coding pathway: Stupor, catatonic 295.2
   Fifth-digit subclassification 0 = unspecified
   
   Tabular List description: 295.20 Schizophrenic disorders, Catatonic type, unspecified

3. **298.1**
   Coding pathway: Psychosis, hysterical, acute 298.1
   
   Tabular List description: 298.1 Other nonorganic psychoses, Excitative type psychosis

4. **300.3**
   Coding pathway: Disorder, obsessive-compulsive 300.3
   Alternative pathway: Obsessive-compulsive 300.3
   
   Tabular List description: 300.3 Obsessive-compulsive disorders

5. **307.1**
   Coding pathway: Anorexia, nervosa 307.1
   
   Tabular List description: 307.1 Anorexia nervosa

6. **312.32**
   Coding pathway: Kleptomania 312.32
   
   Tabular List description: 312.32 Disorders of impulse control, not elsewhere classified, Kleptomania

7. **317**
   Coding pathway: Subnormality, mental, mild 317
   
   Tabular List description: 317 Mild intellectual disabilities
8. Coding pathway: Disorder, bipolar **296.80**
Practice Exercise 25-2

1. **320.3**
   Coding pathway: Meningitis, staphylococcal 320.3
   *Tabular List* description: 320.3 Staphylococcal meningitis

2. **330.1**
   Coding pathway: Disease, Tay-Sachs 330.1
   Alternative pathway: Tay-Sachs, disease 330.1
   Alternative pathway: Disease, Sachs (-Tay) 330.1
   *Tabular List* description: 330.1 Cerebral lipidoses

3. **333.83**
   Coding pathway: Torticollis, spasmodic 333.83
   *Tabular List* description: 333.83 Spasmodic torticollis

4. **342.11**
   Coding pathway: Hemiplegia, spastic 342.1
   Fifth-digit subclassification 1 = affecting dominant side
   *Tabular List* description: 342.11 Spastic hemiplegia, affecting dominant side

5. **345.11**
   Coding pathway: Epilepsy, grand mal 345.1
   Fifth-digit subclassification 1 = with intractable epilepsy
   *Tabular List* description: 345.11 Generalized convulsive epilepsy, with intractable epilepsy

6. **351.0**
   Coding pathway: Bell's, palsy 351.0
   Alternative pathway: Palsy, Bell's 351.0
   *Tabular List* description: 351.0 Bell's palsy
7. Coding pathway: Sclerosis, multiple 340

<table>
<thead>
<tr>
<th>Date of Service</th>
<th>Diagnosis Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>03:19:XX</td>
<td>340</td>
<td>Sclerosis</td>
</tr>
</tbody>
</table>

**HEALTH INSURANCE CLAIM FORM**

**Acknowledgment**

I certify that the statements on the reverse apply to this bill and are made a part thereof.

**Signature**

DATE: 03/19/XX

**Signature on File**

DATE: 03/19/XX

**Signature on File**

DATE: 03/19/XX
Practice Exercise 25-3

1. 360.21
   Coding pathway: Myopia, malignant 360.21
   *Tabular List* description: 360.21 Progressive high (degenerative) myopia

2. 362.52
   Coding pathway: Degeneration, macula, disciform 362.52
   *Tabular List* description: 362.52 Exudative senile macular degeneration

3. 372.03
   Coding pathway: Pink, eye 372.03
   *Tabular List* description: 372.03 Acute conjunctivitis, Other mucopurulent conjunctivitis

4. 376.32
   Coding pathway: Hemorrhage, orbit 376.32
   *Tabular List* description: 376.32 Orbital hemorrhage

5. 384.01
   Coding pathway: Myringitis, bullous 384.01
   *Tabular List* description: 384.01 Bullous myringitis

6. 386.00
   Coding pathway: Disease, Ménière’s 386.00
   Alternative pathway: Ménière’s disease, syndrome, or vertigo 386.00
   *Tabular List* description: 386.00 Ménière’s disease, unspecified

7. 383.00
   Coding pathway: Mastoiditis, acute 383.00
   *Tabular List* description: 383.00 Acute mastoiditis without complications
Practice Exercise 25-4

1. **392.9**
   Coding pathway: Chorea, rheumatic 392.9
   *Tabular List* description: 392.9 Rheumatic chorea, Without mention of heart involvement

2. **397.9**
   Coding pathway: Endocarditis, rheumatic 397.9
   *Tabular List* description: 397.9 Rheumatic diseases of endocardium, valve unspecified

3. **401.1**
   Coding pathway: Hypertension, benign 401.1
   *Tabular List* description: 401.1 Essential hypertension, Benign

4. **405.99 255.0**
   Coding pathway: Hypertension, due to, Cushing’s disease Unspecified 405.99
   *Tabular List* description: 405.99 Secondary hypertension, Unspecified, Other
   Coding pathway: Disease, Cushing's 255.0
   *Tabular List* description: 255.0 Cushing's syndrome

5. **410.01**
   Coding pathway: Infarction, myocardial, anterolateral 410.0
   Fifth-digit subclassification 1 = initial episode of care
   *Tabular List* description: 410.01 Acute myocardial infarction, Of anterolateral wall, initial episode of care

6. **403.91 585.6**
   Coding pathway: Hypertension, kidney, with, chronic kidney disease, stage V or end stage renal disease, Unspecified 403.91
   *Tabular List* description: 403.91 Hypertensive chronic kidney disease, Unspecified, with chronic kidney disease stage V or end stage renal disease
   *Tabular List 403 notes to identify the stage*
   Coding pathway: Disease, renal, end-stage 585.6
   *Tabular List* description: 585.6 Chronic kidney disease [CKD], End-stage renal disease
Practice Exercise 25-5

1. **416.0**
   Coding pathway: Hypertension, pulmonary, idiopathic, Unspecified 416.0
   *Tabular List* description: 416.0 Primary pulmonary hypertension

2. **426.13**
   Coding pathway: Phenomenon, Wenckebach's, heart block 426.13
   Alternative pathway: Wenckebach's phenomenon, heart block 426.13
   *Tabular List* description: 426.13 Other second degree atrioventricular block

3. **440.20**
   Coding pathway: Arteriolosclerosis, extremities 440.20
   *Tabular List* description: 440.20 Atherosclerosis of the extremities, unspecified

4. **454.9**
   Coding pathway: Varicose, vein (lower extremity) 454.9
   *Tabular List* description: 454.9 Asymptomatic varicose veins

5. **427.81**
   Coding pathway: Syndrome, sick, sinus 427.81
   *Tabular List* description: 427.81 Sinoatrial node dysfunction
Lesson 26

Practice Exercise 26-1

1. **466.0**
   Coding pathway: Bronchitis, pneumococcal, acute or subacute 466.0
   Tabular List description: 466.0 Acute bronchitis

2. **473.0**
   Coding pathway: Sinusitis, maxillary 473.0
   Tabular List description: 473.0 Chronic sinusitis, Maxillary

3. **482.84**
   Coding pathway: Disease, Legionnaires 482.84
   Alternative Pathway: Legionnaires disease 482.84
   Tabular List description: 482.84 Legionnaires disease

4. **493.20**
   Coding pathway: Bronchitis, asthmatic, chronic 493.2
   Fifth-digit subclassification 0 = status or exacerbation are not stated
   Tabular List description: 493.20 Chronic obstructive asthma, unspecified

5. **518.82**
   Coding pathway: Syndrome, respiratory distress, adult, specified NEC 518.82
   Tabular List description: 518.82 Other pulmonary insufficiency, not elsewhere classified

6. **518.81**
   Coding pathway: Failure, respiration, acute 518.81
   Tabular List description: 518.81 Other diseases of lung, Acute respiratory failure
Practice Exercise 26-2

1. 528.00
   Coding pathway: Stomatitis, ulcerative 528.00
   *Tabular List* description: 528.00 Stomatitis and mucositis, unspecified

2. 531.00
   Coding pathway: Ulcer, prepyloric—see Ulcer, stomach
   New pathway: Ulcer, stomach, acute, with, hemorrhage 531.0 ✓
   Fifth-digit subclassification 0 = without mention of obstruction
   *Tabular List* description: 531.00 Gastric ulcer, Acute with hemorrhage, without mention of obstruction

3. 532.71
   Coding pathway: Ulcer, duodenum, chronic 532.7 ✓
   Fifth-digit subclassification 1 = with obstruction
   *Tabular List* description: 532.71 Duodenal ulcer, Chronic without mention of hemorrhage or perforation, with obstruction

4. 540.0
   Coding pathway: Appendicitis, with, perforation, peritonitis (generalized), or rupture 540.0
   *Tabular List* description: 540.0 Acute appendicitis, With generalized peritonitis

5. 552.3
   Coding pathway: Hernia, hiatal, with, obstruction (strangulated means obstruction) 552.3
   *Tabular List* description: 552.3 Diaphragmatic hernia with obstruction

6. 560.30
   Coding pathway: Impaction, impacted, bowel, colon, rectum 560.30
   *Tabular List* description: 560.30 Impaction of intestine, unspecified

7. 564.2
   Coding pathway: Syndrome, dumping 564.2
   Alternative pathway: Dumping syndrome (postgastrectomy) 564.2
   *Tabular List* description: 564.2 Postgastric surgery syndromes

8. 571.5
   Coding pathway: Cirrhosis, liver 571.5
   *Tabular List* description: 571.5 Cirrhosis of liver without mention of alcohol
9. 535.50 531.90 532.90
   Coding pathway: Gastritis 535.5
   Fifth-digit subclassification 0 = without mention of hemorrhage
   Tabular List description: 535.50 Unspecified gastritis and gastroduodenitis, without mention of hemorrhage
   Coding pathway: Ulcer, gastric—see Ulcer, stomach
   New pathway: Ulcer, stomach, 531.9
   Fifth-digit subclassification 0 = without mention of obstruction
   Tabular List description: 531.90 Gastric ulcer, Unspecified as acute or chronic, without mention of hemorrhage or perforation, without mention of obstruction
   Coding pathway: Ulcer, duodenal 532.9
   Fifth-digit subclassification 0 = without mention of obstruction
   Tabular List description: 532.90 Duodenal ulcer, Unspecified as acute or chronic, without mention of hemorrhage or perforation, without mention of obstruction

Practice Exercise 26-3

1. 250.40 581.81 V58.67
   Coding pathway: Nephrosis, diabetic 250.4 [581.81]
   250 Fifth-digit subclassification 0 = unspecified type, not stated as uncontrolled
   Tabular List description: 250.40 Diabetes with renal manifestation, type 2 or unspecified type, not stated as uncontrolled
   Tabular List note: Use additional code, if applicable, for associated long-term (current) insulin use V58.67
   Tabular List description: 581.81 Nephrotic syndrome in diseases classified elsewhere
   Tabular List description: V58.67 Long-term (current) use of insulin

2. 590.2
   Coding pathway: Carbuncle, kidney 590.2
   Tabular List description: 590.2 Renal and perinephric abscess

3. 595.0 041.49
   Coding pathway: Cystitis, acute 595.0
   Tabular List description: 595.0 Acute cystitis
   Note: Use additional code to identify organism
   Coding pathway: Infection, Escherichia coli 041.49
   Tabular List description: 041.49 Other and unspecified Escherichia coli [E coli]
4. **600.10**  
   Coding pathway: Hard firm prostate 600.10  
   *Tabular List* description: 600.10 Nodular prostate without urinary obstruction

5. **604.0**  
   Coding pathway: Abscess, testicle—*see* Orchitis  
   New pathway: Orchitis, with abscess 604.0  
   *Tabular List* description: 604.0 Orchitis, epididymitis and epididymo-orchitis with abscess

6. **610.2**  
   Coding pathway: Fibroadenosis, breast (periodic) 610.2  
   *Tabular List* description: 610.2 Fibroadenosis of breast

7. **618.02**  
   Coding pathway: Prolapse, vagina, paravaginal 618.02  
   *Tabular List* description: 618.02 Prolapse of vaginal walls without mention of uterine prolapse, Cystocele, lateral

8. **626.0**  
   Coding pathway: Amenorrhea 626.0  
   *Tabular List* description: 626.0 Absence of menstruation
9. Coding pathway: Infection, urinary (tract) **599.0**

Note: Use additional code to identify organism.

Coding pathway: Infection, Enterobacter aerogenes **041.85**
Practice Exercise 26-4

1. **633.20**
   
   Coding pathway: Pregnancy, ovarian 633.20
   
   Tabular List description: 633.20 Ovarian pregnancy without intrauterine pregnancy

2. **634.92**
   
   Coding pathway: Miscarriage—see Abortion, spontaneous
   
   New pathway: Abortion, spontaneous, 634.9
   
   Fifth-digit subclassification 2 = complete
   
   Tabular List description: 634.92 Spontaneous abortion, Without mention of complication, complete

3. **641.13**
   
   Coding pathway: Pregnancy, complicated (by), placenta, previa, 641.1
   
   Fifth-digit subclassification 3 = antepartum condition or complication
   
   Tabular List description: 641.13 Hemorrhage from placenta previa, antepartum condition or complication

4. **643.03**
   
   Coding pathway: Hyperemesis, gravidarum 643.0
   
   Fifth-digit subclassification 3 = antepartum condition or complication
   
   Tabular List description: 643.03 Mild hyperemesis gravidarum, antepartum condition or complication

5. **651.01 V91.00 V27.2**
   
   Coding pathway: Delivery, twins 651.0
   
   Fifth-digit subclassification 1 = delivered, with or without mention of antepartum condition
   
   Tabular List description: 651.01 Twin pregnancy, delivered, with or without mention of antepartum condition
   
   Coding pathway: Gestation, multiple, placenta status, twin, unspecified number of placenta, unspecified number of amniotic sacs V91.00
   
   Tabular List description: V91.00 Twin gestation, unspecified number of placenta, unspecified number of amniotic sacs
   
   Coding pathway: Outcome of delivery, twins, both liveborn V27.2
   
   Tabular List description: V27.2 Twins, both liveborn
6. **654.21 V27.0**
   Coding pathway: Delivery, complicated (by), previous, cesarean delivery 654.2 ✔
   Fifth-digit subclassification 1 = delivered, with or without mention of antepartum condition
   *Tabular List* description: 654.21 Previous cesarean delivery, delivered, with or without mention of antepartum condition
   Coding pathway: Outcome of delivery, single, liveborn V27.0
   *Tabular List* description: V27.0 Single liveborn

7. **664.21 V27.0**
   Coding pathway: Delivery, complicated (by), laceration, perineum, third degree 664.2 ✔
   Fifth-digit subclassification 1 = delivered, with or without mention of antepartum condition
   *Tabular List* description: 664.21 Third-degree perineal laceration, delivered, with or without mention of antepartum condition
   Coding pathway: Outcome of delivery, single, liveborn V27.0
   *Tabular List* description: V27.0 Single liveborn

8. **673.24**
   Coding pathway: Pregnancy, complicated (by), embolism (pulmonary) 673.2 ✔
   Alternative pathway: Embolism, obstetrical (pulmonary) 673.2 ✔
   Fifth-digit subclassification 4 = postpartum condition or complication
   *Tabular List* description: 673.24 Obstetrical blood-clot embolism, postpartum condition or complication

9. **676.14**
   Coding pathway: Cracked nipple, puerperal, postpartum 676.1 ✔
   Fifth-digit subclassification 4 = postpartum condition or complication
   *Tabular List* description: 676.14 Cracked nipple, postpartum condition or complication

10. **650 V27.0**
    Coding pathway: Delivery, normal—see category 650
    *Tabular List* description: 650 Normal delivery
    Coding pathway: Outcome of delivery, single, liveborn V27.0
    *Tabular List* description: V27.0 Outcome of delivery, Single liveborn
Lesson 27

Practice Exercise 27-1

1. **680.0**
   Coding pathway: Boil, ear (any part) 680.0
   *Tabular List* description: 680.0 Carbuncle and furuncle, Face

2. **692.71**
   Coding pathway: Sunburn 692.71
   *Tabular List* description: 692.71 Contact dermatitis and other eczema, Due to solar radiation, Sunburn

3. **692.84**
   Coding pathway: Eczema, due to specified cause—*see* Dermatitis, due to
   New pathway: Dermatitis, due to, hair, animal (cat) (dog) 692.84
   *Tabular List* description: 692.84 Contact dermatitis and other eczema, Due to other specified agents,
   Due to animal (cat) (dog) dander

4. **695.4**
   Coding pathway: Lupus, erythematosus 695.4
   Alternative pathway: Erythema, erythematous, lupus 695.4
   *Tabular List* description: 695.4 Lupus erythematosus

5. **698.0**
   Coding pathway: Itch, perianal 698.0
   *Tabular List* description: 698.0 Pruritus and related conditions, Pruritus ani

6. **704.00**
   Coding pathway: Baldness 704.00
   *Tabular List* description: 704.00 Alopecia, unspecified
7. **707.05 707.22 438.20**

Coding pathway: Ulcer, pressure, buttock 707.05  
*Tabular List description: 707.05 Chronic ulcer of skin, Pressure ulcer, Buttock*

Coding pathway: Ulcer, pressure, stage, II 707.22  
*Tabular List description: 707.22 Pressure ulcer stage II*

Coding pathway: Late, effect, cerebrovascular disease, with, hemiplegia, affecting, unspecified side 438.20  
*Tabular List description: 438.20 Late effects of cerebrovascular disease, Hemiplegia/hemiparesis, Hemiplegia affecting unspecified side*

*Note: late effect is coded because the patient would not have the pressure sore if not in a wheelchair. The patient is in the wheelchair because of the hemiplegia which was caused by the cerebrovascular disease.*
8. Coding pathway: Paronychia, finger 681.02
Practice Exercise 27-2

1. 719.41
   Coding pathway: Arthralgia—*see also* Pain, joint
   New pathway: Pain, joint, shoulder 719.41
   *Tabular List* description: 719.41 Other and unspecified disorders of joint, Pain in joint, shoulder region

2. 722.0
   Coding pathway: Hernia, intervertebral cartilage or disc—*see* Displacement, intervertebral disc
   New pathway: Displacement, intervertebral disc, cervical 722.0
   *Tabular List* description: 722.0 Intervertebral disc disorders, Displacement of cervical intervertebral disc without myelopathy

3. 722.91
   Coding pathway: Calcification, disc, intervertebral, cervical 722.91
   *Tabular List* description: 722.91 Intervertebral disc disorders, Other and unspecified disc disorder, Cervical region

4. 724.2
   Coding pathway: Pain, back, low 724.2
   *Tabular List* description: 724.2 Other and unspecified disorders of back, Lumbago

5. 726.5
   Coding pathway: Bursitis, hip 726.5
   *Tabular List* description: 726.5 Peripheral enthesopathies and allied syndromes, Enthesopathy of hip region

6. 727.03
   Coding pathway: Trigger finger (acquired) 727.03
   *Tabular List* description: 727.03 Other disorders of synovium, tendon, and bursa, Synovitis and tenosynovitis, Trigger finger (acquired)

7. 728.0
   Coding pathway: Myositis, infective 728.0
   *Tabular List* description: 728.0 Disorders of muscle, ligament and fascia, Infective myositis

8. 733.02
   Coding pathway: Osteoporosis, idiopathic 733.02
   *Tabular List* description: 733.02 Other disorders of bone and cartilage, Osteoporosis, Idiopathic osteoporosis
<table>
<thead>
<tr>
<th>Item</th>
<th>Information</th>
</tr>
</thead>
</table>
| 9. | Coding pathway: Hypothyroidism **244.9**  
Coding pathway: Arthritis, rheumatoid **714.0**  
Coding pathway: Osteoporosis **733.00** |

**HEALTH INSURANCE CLAIM FORM**

**APPROVED BY NATIONAL UNIFORM CLAIM COMMITTEE 08/05**

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
</table>
| 1. | Medicare  
| 2. | Medicaid  
| 3. | TRICARE  
| 4. | CHAMPVA  
| 5. | GROUP HEALTH PLAN  
| 6. | FECA  
| 7. | VICA  
| 8. | (For Program in Item 9) 
| 9. | INSURED'S ID NUMBER  
| 10. | NPI  
| 11. | FROM TO  
| 12. | NAME OF REFERRING PROVIDER OR OTHER SOURCE  
| 13. | IS PATIENT'S CONDITION RELATED TO:  
| 14. | INSURED'S NAME (Last Name, First Name, Middle Initial)  
| 15. | INSURED'S OR AUTHORIZED PERSON'S SIGNATURE  
| 16. | DATES PATIENT UNABLE TO WORK IN CURRENT OCCUPATION  
| 17. | AUTO ACCIDENT? Place (State)  
| 18. | DATES PATIENT UNABLE TO WORK IN CURRENT OCCUPATION  
| 19. | EMPLOYER'S NAME OR SCHOOL NAME  
| 20. | EMPLOYMENT? (Current or Previous)  
| 21. | MEDICARE MEDICAID TRICARE  
| 22. | MEDICAID RESUBMISSION  
| 23. | PRIOR AUTHORIZATION NUMBER  
| 24. | DIAGNOSIS OR NATURE OF ILLNESS OR INJURY (Relate Items 1, 2, 3, or 4 to Item 24E by Line.)  
| 25. | FEDERAL TAX I.D. NUMBER SSN EIN  
| 26. | PATIENT'S ACCOUNT NO.  
| 27. | ACCEPT ASSIGNMENT?  
| 28. | TOTAL CHARGE  
| 29. | AMOUNT PAID  
| 30. | BALANCE DUE  
| 31. | SIGNATURE OF PHYSICIAN OR SUPPLIER  
| 32. | SERVICE FACILITY LOCATION INFORMATION  
| 33. | BILLING PROVIDER INFO & PH# |
Practice Exercise 27-3

1. 741.93
   Coding pathway: Spina bifida 741.9 ✓
   Fifth-digit subclassification 3 = lumbar region
   Tabular List description: 741.93 Spina bifida, Without mention of hydrocephalus, lumbar region

2. 743.11
   Coding pathway: Hypoplasia, eye (see also Microphthalmos)
   New pathway: Microphthalmos, simple 743.11
   Tabular List description: 743.11 Congenital anomalies of eye, Microphthalmos, Simple microphthalmos

3. 744.01
   Coding pathway: Absence, auditory canal (congenital) 744.01
   Tabular List description: 744.01 Congenital anomalies of ear, face and neck, Anomalies of ear causing impairment of hearing, Absence of external ear

4. 745.4
   Coding pathway: Disease, Roger’s 745.4
   Tabular List description: 745.4 Bulbus cordis anomalies and anomalies of cardiac septal closure, Ventricular septal defect

5. 746.09
   Coding pathway: Fallot, triad or trilogy 746.09
   Tabular List description: 746.09 Other congenital anomalies of heart, Anomalies of pulmonary valve, Other

6. 747.5
   Coding pathway: Single, umbilical artery 747.5
   Tabular List description: 747.5 Other congenital anomalies of circulatory system, Absence or hypoplasia of umbilical artery

7. 748.4
   Coding pathway: Honeycomb lung, congenital 748.4
   Tabular List description: 748.4 Congenital anomalies of respiratory system, Congenital cystic lung
8. 749.22
   Coding pathway: Cheilopalatoschisis—see also Cleft, palate, with cleft lip
   New pathway: Cleft, palate, with cleft lip, unilateral, incomplete 749.22
   Tabular List description: 749.22 Cleft palate and cleft lip, Cleft palate with cleft lip, Unilateral, incomplete

9. 752.2 Didelphic uterus
   Coding pathway: Didelphys, didelphic—see also Double uterus 752.2
   Tabular List description: 752.2 Congenital anomalies of genital organs, Doubling of uterus

10. 744.3 756.10 755.29 755.20 746.9
    Coding pathway: Dysplasia—see also Anomaly
    New pathway: Anomaly, auricle, ear 744.3
    Tabular List description: 744.3 Congenital anomalies of ear, face and neck, Unspecified anomaly of ear
    Coding pathway: Anomaly, vertebra 756.10
    Tabular List description: 756.10 Other congenital musculoskeletal anomalies, Anomaly of spine, unspecified
    Coding pathway: Hypoplasia, finger (see also Absence, finger, congenital)
    New pathway: Absence, finger, congenital 755.29
    Tabular List description: 755.29 Other congenital anomalies of limbs, Longitudinal deficiency, phalanges, complete or partial
    Coding pathway: Short, arm, congenital 755.20
    Tabular List description: 755.20 Other congenital anomalies of limbs, Unspecified reduction deformity of upper limb
    Coding pathway: Disease, heart, congenital 746.9
    Tabular List description: 746.9 Other congenital anomalies of heart, Unspecified anomaly of heart
Practice Exercise 27-4

1. **V30.01 768.3 765.28**
   - Coding pathway: Newborn, single, born in hospital, with cesarean delivery or section V30.01
   - *Tabular List* description: V30.01 Single liveborn, Born in hospital, delivered by cesarean delivery
   - Coding pathway: Distress, fetal, liveborn infant, first noted, during labor or delivery 768.3
   - *Tabular List* description: 768.3 Intrauterine hypoxia and birth asphyxia, Fetal distress first noted during labor, in liveborn infant
   - Coding pathway: Newborn, gestation, 35-36 completed weeks 765.28
   - *Tabular List* description: 765.28 Disorders relating to short gestation and low birthweight, Weeks of gestation, 35-36 completed weeks of gestation

2. **V30.00 766.1**
   - Coding pathway: Newborn, single, born in hospital (without mention of cesarean delivery or section) V30.00
   - *Tabular List* description: V30.00 Single liveborn, Born in hospital, delivered without mention of cesarean delivery
   - Coding pathway: Large, for dates, fetus or newborn 766.1
   - *Tabular List* description: 766.1 Disorders relating to long gestation and high birthweight, Other “heavy-for-dates” infants

3. **V30.00 766.21 758.0**
   - Coding pathway: Newborn, single, born in hospital (without mention of cesarean delivery or section) V30.00
   - *Tabular List* description: V30.00 Single liveborn, Born in hospital, delivered without mention of cesarean delivery
   - Coding pathway: Post-term, infant 766.21
   - *Tabular List* description: 766.21 Disorders relating to long gestation and high birthweight, Late infant, not “heavy-for dates,” Post-term infant
   - Coding Pathway: Syndrome, Down’s 758.0
   - *Tabular List* description: 758.0 Chromosomal anomalies, Down syndrome
Healthcare Documentation Program

4. **V30.00 764.00 760.71**
   - Coding pathway: Newborn, single, born in hospital (without mention of cesarean delivery or section) V30.00
   - *Tabular List* description: V30.00 Single liveborn, Born in hospital, delivered without mention of cesarean delivery
   - Coding pathway: Small, for dates, fetus or newborn 764.0
   - Fifth-digit subclassification 0 = unspecified [weight]
   - *Tabular List* description: 764.00 Slow fetal growth and fetal malnutrition, “Light-for-dates” without mention of fetal malnutrition, unspecified [weight]
   - Coding pathway: Syndrome, fetal alcohol 760.71
   - *Tabular List* description: 760.71 Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy, Noxious influences affecting fetus or newborn via placenta or breast milk, Alcohol

5. **V32.01 765.26**
   - Coding pathway: Newborn, twin, mate stillborn, born in hospital V32.0
   - Fifth-digit subclassification 1 = delivered by cesarean delivery
   - *Tabular List* description: V32.01 Twin, mate stillborn, Born in hospital, delivered by cesarean delivery
   - Coding pathway: Newborn, gestation, 31-32 completed weeks 765.26
   - *Tabular List* description: 765.26 Disorders relating to short gestation and low birthweight, Weeks of gestation, 31 – 32 completed weeks of gestation
Lesson 28

Practice Exercise 28-1

1. **780.03**
   Coding pathway: State, vegetative (persistent) 780.03
   Alternative pathway: Vegetation, Vegetative, state (persistent) 780.03
   *Tabular List* description: 780.03 Alteration of consciousness, Persistent vegetative state

2. **780.53**
   Coding pathway: Hypersomnia, unspecified, with sleep apnea, unspecified 780.53
   *Tabular List* description: 780.53 General symptoms, Sleep disturbance, Hypersomnia with sleep apnea, unspecified

3. **780.60**
   Coding pathway: Pyrexia (of unknown origin) 780.60
   *Tabular List* description: 780.60 Fever, unspecified

4. **780.79**
   Coding pathway: Lethargy 780.79
   *Tabular List* description: 780.79 Malaise and fatigue, Other malaise and fatigue

5. **781.4**
   Coding pathway: Monoplegia, transient 781.4
   *Tabular List* description: 781.4 Transient paralysis of limb

6. **782.0**
   Coding pathway: Numbness 782.0
   *Tabular List* description: 782.0 Disturbance of skin sensation

7. **786.59**
   Coding pathway: Discomfort, chest 786.59
   *Tabular List* description: 786.59 Chest pain, Other

8. **796.2**
   Coding pathway: Elevation, blood pressure, reading, no diagnosis of hypertension 796.2
   *Tabular List* description: 796.2 Elevated blood pressure reading without diagnosis of hypertension

9. **795.00**
   Coding pathway: Abnormal, Papanicolaou (smear) cervix 795.00
   *Tabular List* description: 795.00 Abnormal glandular Papanicolaou smear of cervix
HEALTH INSURANCE CLAIM FORM

HEALTHCARE Documentation Program
b. 0220332233

1500

10. Coding pathway: Pain, pleuritic 786.52
Coding pathway: Fever, postoperative 780.62

11. PATIENT’S OR AUTHORIZED PERSON’S SIGNATURE. I authorize the release of any medical or other information necessary

12. 780.62

13. INSURED’S OR AUTHORIZED PERSON’S SIGNATURE. I authorize payment of medical benefits to the undersigned physician or supplier for services described below.

14. DATE OF CURRENT ILLNESS (First symptom) or PREGNANCY (LMP)

15. IF PATIENT HAS HAD SAME OR SIMILAR ILLNESS, GIVE FIRST DATE

16. DATES PATIENT UNABLE TO WORK IN CURRENT OCCUPATION

17. PRIOR AUTHORIZATION NUMBER

18. INSURED’S POLICY GROUP OR FECA NUMBER

19. INSURED’S DATE OF BIRTH

20. INSURED’S ADDRESS (No., Street)

21. PATIENT’S ADDRESS (No., Street)

22. MEDICAID RESUBMISSION CODE

23. 402004679 LA4832

24. A. DATES OF SERVICE

25. FEDERAL TIN NUMBER

26. PATIENT’S OR AUTHORIZED PERSON’S SIGNATURE

27. ACCEPT ASSIGNMENT

28. TOTAL CHARGE

29. AMOUNT PAID

30. INSURED’S OR AUTHORIZED PERSON’S SIGNATURE

31. SIGNATURE OF PHYSICIAN OR SUPPLIER INCLUDING DEGREES OR CREDENTIALS (I certify that the statements on the reverse apply to this bill and are made a part thereof.)

32. SERVICE FACILITY LOCATION INFORMATION

33. BILLING PROVIDER INFO & PHN 

READ BACK OF FORM BEFORE COMPLETING & SIGNING THIS FORM.
Practice Exercise 28-2

1. **802.6**
   Coding pathway: Fracture, orbit, floor (blow-out) 802.6
   *Tabular List description: 802.6 Fracture of face bones, Orbital floor (blow-out), closed*

2. **806.01**
   Coding pathway: Fracture, vertebra, cervical, with spinal cord injury—see Fracture, vertebra, with spinal cord injury, cervical
   New pathway: Fracture, vertebra, with spinal cord injury, cervical 806.0
   *Tabular List description: 806.01 Fracture of vertebral column with spinal cord injury, Cervical, closed, C1-C4 level with complete lesion of cord*

3. **812.52**
   Coding pathway: Fracture, humerus, condyle(s), lateral, open 812.52
   *Tabular List description: 812.52 Fracture of humerus, Lower end, open, Lateral condyle*

4. **839.20**
   Coding pathway: Displacement, intervertebral disc, due to trauma—see Dislocation, vertebra, lumbar
   New pathway: Dislocation, vertebra, lumbar 839.20
   *Tabular List description: 839.20 Other, multiple and ill-defined dislocations, Thoracic and lumbar vertebra, closed, Lumbar vertebra*

5. **845.13**
   Coding pathway: Rupture, joint capsule—see Sprain, by site
   New pathway: Sprain, interphalangeal, toe 845.13
   *Tabular List description: 845.13 Sprains and strains of ankle and foot, Foot, Interphalangeal (joint), toe*

6. **852.15**
   Coding pathway: Hemorrhage, intracranial, traumatic—see Hemorrhage, brain, traumatic, subarachnoid
   New pathway: Hemorrhage, brain, traumatic, subarachnoid, with open intracranial wound 852.1
   Fifth-digit subclassification 5 = with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level
   *Tabular List description: 852.15 Subarachnoid hemorrhage following injury with open intracranial wound, with prolonged [more than 24 hours] loss of consciousness, without return to pre-existing conscious level*
7. **810.03 831.01**  
   Coding pathway: Fracture, clavicle, acromial end 810.03  
   *Tabular List* description: 810.03 Fracture of clavicle, Closed, acromial end of clavicle  
   Coding pathway: Dislocation, humerus, proximal end, anterior 831.01  
   *Tabular List*: 831.01 Dislocation of shoulder, Closed dislocation, anterior dislocation of humerus

8. **812.00 820.8**  
   Coding pathway: Fracture, humerus, proximal end—*see* Fracture, humerus, upper end; Fracture, humerus, upper end 812.00  
   *Tabular List* description: 812.00 Fracture of humerus, Upper end, closed, Upper end, unspecified part  
   Coding pathway: Fracture, femur, neck 820.8  
   *Tabular List* description: 820.8 Fracture of neck of femur, Unspecified part of neck of femur, closed

### Practice Exercise 28-3

1. **871.3 873.42**  
   Coding pathway: Enucleation of eye 871.3  
   *Tabular List*: 871.3 Open wound of eyeball, Avulsion of eye  
   Coding pathway: Laceration—*see also* Wound, open, by site  
   New pathway: Wound, open, forehead 873.42  
   *Tabular List*: 873.42 Other open wound of head, Face, without mention of complication, Forehead

2. **881.20**  
   Coding pathway: Laceration—*see also* Wound, open, by site  
   New pathway: Wound, open, forearm, with tendon involvement 881.20  
   *Tabular List*: 881.20 Open wound of elbow, forearm and wrist, With tendon involvement, forearm

3. **821.11 904.2**  
   Coding pathway: Fracture, femur, shaft, open 821.11  
   *Tabular List*: 821.11 Fracture of other and unspecified parts of femur, Shaft or unspecified part, open, Shaft  
   Coding pathway: Avulsion, blood vessel—*see* Injury, blood vessel, by site  
   New pathway: Injury, blood vessel, femoral, vein 904.2  
   *Tabular List*: 904.2 Injury to blood vessel of lower extremity and unspecified sites, Femoral veins
4. **917.2**  
Coding pathway: Blister—see also Injury, superficial, by site  
New pathway: Injury, superficial, heel (and foot or toe) 917
  
Fourth-digit 2 = Blister without mention of infection  
*Tabular List:* 917.2 Superficial injury of foot and toe(s), Blister without mention of infection

5. **802.0 921.0 920**  
Coding pathway: Fracture, nose 802.0  
*Tabular List:* 802.0 Fracture of face bones, Nasal bones, closed  
Coding pathway: Black, eye 921.0  
*Tabular List:* 921.0 Black eye, not otherwise specified  
Coding pathway: Contusion, face 920  
*Tabular List:* 920 Contusion of face, scalp and neck except eye(s)

6. **824.1 928.21**  
Coding pathway: Fracture, malleolus, medial, open 824.1  
*Tabular List:* 824.1 Fracture of ankle, Medial malleolus, open  
Coding pathway: Crush, ankle 928.21  
*Tabular List:* 928.21 Crushing injury of lower limb, Ankle and foot, excluding toe(s) alone, Ankle

7. **945.26 942.24 948.10**  
Coding pathway: Burn, thigh, second degree 945.26  
*Tabular List:* 945.26 Burns of lower limb(s), Blisters, epidermal loss [second degree], thigh [any part]  
Coding pathway: Burn, back, second degree 942.24  
*Tabular List:* 942.24 Burn of trunk, Blisters, epidermal loss [second degree degree], back [any part]  
Coding pathway: Burn, extent (percent of body surface), 10-19 percent 948.1
  
Fifth-digit 0 = less than 10 percent or unspecified as third degree  
*Tabular List:* 948.10 Burns classified according to extent of body surface involved, 10-19 percent of body surface

8. **967.0 E851**  
*Table of Drugs and Chemicals:* Barbiturates, barbituric acid  
Poisoning: 967.0 Accident: E851  
*Tabular List:* 967.0 Poisoning by sedatives and hypnotics, Barbiturates  
*Tabular List:* E851 Accidental poisoning by barbiturates
9. **982.8 E950.9**

*Table of Drugs and Chemicals:* Nail polish remover

Poisoning: 982.8 Suicide Attempt: E950.9

*Tabular List:* 982.8 Toxic effect of solvents other than petroleum-based, Other nonpetroleum-based solvents

*Tabular List:* E950.9 Suicide and self-inflicted poisoning by solid or liquid substances, Other and unspecified solid and liquid substances
10. Coding pathway: Burn, forearm, second degree **943.21**

Coding pathway: Burn, extent, less than 10 percent **948.00**

Fifth-digit = less than 10 percent or unspecified (third degree burn)
Lesson 29

Practice Exercise 29-1

1. **198.3 V10.3**
   Coding pathway: Carcinoma—see also Neoplasm, by site, malignant
   New pathway: Neoplasm, brain, malignant, secondary 198.3
   *Tabular List: 198.3 Secondary malignant neoplasm of other unspecified sites, Brain and spinal cord*
   Coding pathway: History (personal) (of), malignant neoplasm (of), breast V10.3
   *Tabular List: V10.3 Personal history of malignant neoplasm, Breast*

2. **786.50 V45.89**
   Coding pathway: Pain, chest 786.50
   *Tabular List: 786.50 Chest pain, unspecified*
   Coding pathway: Status, postsurgical V45.89
   *Tabular List: V45.89 Other postprocedural status, Other*

3. **650 V27.0**
   Coding pathway: Delivery, normal—see category 650
   *Tabular List: 650 Normal delivery*
   Coding pathway: Outcome of delivery, single, liveborn V27.0
   *Tabular List: V27.0 Outcome of delivery, Single liveborn*

4. **V72.31**
   Coding pathway: Examination, gynecological V72.31
   *Tabular List: V72.31 Special investigations and examinations, Gynecological examination, Routine gynecological examination*

Practice Exercise 29-2

1. **842.00 E849.4 E885.2**
   Coding pathway: Sprain, wrist 842.00
   *Tabular List: 842.00 Sprains and strains of wrist and hand, Wrist, Unspecified site*
   Index to External Causes: Accident, occurring (at), park (public) E849.4
   *Tabular List: E849.4 Place of occurrence, Place for recreation and sport*
   Index to External Causes: Fall, from, skateboard E885.2
   *Tabular List: E885.2 Fall on same level from slipping, tripping, or stumbling, Fall from skateboard*
2. **945.30 948.33 E803.1**

Coding pathway: Burns, leg, third degree 945.30

*Tabular List:* 945.30 Burn of lower limb(s), Full-thickness skin loss [third degree NOS], lower limb [leg], unspecified site

Coding pathway: Burns, extent (percent of body surface), 30-39 percent 948.3

*Remember, each anterior or posterior leg equals 9%. For our diagnosis, two anterior legs equal 18% and two posterior legs equal 18%. This results in a total of 36% body surface burned.*

Fifth-digit subclassification 3 = 30-39 percent (third degree burn)

*Tabular List:* 948.33 Burns classified according to extent of body surface involved, 30-39 percent of body surface

*Index to External Causes:* Explosion, railway engine, locomotive, train E803

Fourth-digit 1 = Passenger on railway

*Tabular List:* E803.1 Railway accident involving explosion, fire, or burning, Passenger on railway

3. **922.2 E812.1**

Coding pathway: Contusions, abdomen 922.2

*Tabular List:* 922.2 Contusion of trunk, Abdominal wall

*Index to External Causes:* Collision, motor vehicle and another motor vehicle E812

Fourth-digit 1 = Passenger in motor vehicle other than motorcycle

*Tabular List:* E812.1 Other motor vehicle accident involving collision with motor vehicle

*Note: only “how” is coded because “where” is not documented.*

4. **813.42 E849.0 E888.9**

Coding pathway: Fracture, radius, distal end—see Fracture, radius, lower end

New pathway: Fracture, radius, lower end 813.42

*Tabular List:* 813.42 Fracture of radius and ulna, Lower end, closed, Other fractures of distal end of radius (alone)

*Index to External Causes:* Accident, occurring (at), home E849.0

*Tabular List:* E849.0 Place of occurrence, Home

*Index to External Causes:* Fall, falling (accidental) E888.9

*Tabular list:* E888.9 Other and unspecified fall
Practice Exercise 29-3

998.59

Coding pathway: Infection, postoperative, wound 998.59
Tabular List: 998.59 Other complications of procedures, not elsewhere classified, postoperative infection, Other postoperative infection

Practice Exercise 29-4

250.50 362.02 V58.67

Coding pathway: Diabetes, diabetic, retinopathy, proliferative 250.5 [362.02]
Tabular List: 250.50 Diabetes with ophthalmic manifestations
Fifth-digit 0 = type 2 or unspecified type, not stated as uncontrolled
Tabular List: 362.02 Diabetic retinopathy, Proliferative diabetic retinopathy
Coding pathway: Long-term, insulin V58.67
Tabular List: Long-term (current) use of insulin

Practice Exercise 29-5

486

Coding pathway: Pneumonia 486
Tabular List: 486 Pneumonia, organism unspecified

Practice Exercise 29-6

720.9 722.10

Coding pathway: Spondylopathy, inflammatory 720.9
Tabular List: 720.9 Ankylosing spondylitis and other inflammatory spondylopathies, Unspecified inflammatory spondylopathy
Coding pathway: Protrusion, intervertebral disc—see Displacement, intervertebral disc
New pathway: Displacement, intervertebral disc, lumbar 722.10
Tabular List: 722.10 Intervertebral disc disorders, Displacement of thoracic or lumbar intervertebral disc without myelopathy, Lumbar intervertebral disc without myelopathy
Practice Exercise 29-7

714.0 718.97 733.19 733.00 V13.51

Coding pathway: Arthritis, rheumatoid 714.0

Tabular List: 714.0 Rheumatoid arthritis and other inflammatory polyarthropathies, Rheumatoid arthritis

Coding pathway: Destruction, joint—see also Derangement, joint

New pathway: Derangement, joint, foot 718.97

Tabular List: 718.97 Other derangement of joint, Unspecified derangement of joint, ankle and foot

Coding pathway: Fracture, pathologic, specified site 733.19

Tabular List: 733.19 Other disorders of bone and cartilage, Pathologic fracture, Pathologic fracture of other specified site

Coding pathway: Osteoporosis (generalized) 733.00

Tabular List: 733.00 Other disorders of bone and cartilage, Osteoporosis, Osteoporosis, unspecified

Coding pathway: History of, fracture, healed, pathological V13.51

Tabular List: Personal history of other diseases, Pathological fracture

Practice Exercise 29-8

250.60 357.2 438.9 V58.67

Coding pathway: Diabetes, neuropathy; type 2 250.6 [357.2]; type 2

Tabular List description: 250.60 Diabetes with neurological manifestations; type 2

Tabular List description: 357.2 Polyneuropathy in diabetes

Coding pathway: Late effects (of), cerebrovascular disease 438.9

Tabular List description: 438.9 Unspecified late effects of cerebrovascular disease

Coding pathway: Long-term, insulin V58.67

Tabular List description: V58.67 Long-term (current) use of insulin

Practice Exercise 29-9

813.41

Coding pathway: Fracture, Colles’ 813.41

Tabular List: 813.41 Fracture of radius and ulna, lower end, closed, Colles’ fracture
Practice Exercise 29-10

288.60
Coding pathway: Leukocytosis 288.60

*Tabular List*: 288.60 Diseases of white blood cells, Leukocytosis, unspecified

Practice Exercise 29-11

455.1
Coding pathway: Hemorrhoids, internal, thrombosed 455.1

*Tabular List*: 455.1 Hemorrhoids, Internal thrombosed hemorrhoids

Practice Exercise 29-12

836.0 836.1
Coding pathway: Tear, meniscus, medial 836.0
*Tabular List*: 836.0 Dislocation of knee, Tear of medical cartilage or meniscus of knee, current
Coding pathway: Tear, meniscus, lateral 836.1
*Tabular List*: 836.1 Dislocation of knee, Tear of lateral cartilage or meniscus of knee, current
Lesson 30

Practice Exercise 30-1

1. Electronic health records will replace paper health records.

2. People will use personal health records and take more responsibility for their health and well-being.

3. Providers will move toward an electronic document management system based on computers.

4. Electronic coding will complete many of the easy, simple coding tasks.

5. More and more coders will telecommute from home.