

Disclaimer

This course was current when it was published. Every reasonable effort has been made to assure the accuracy of the information within these pages. The ultimate responsibility lies with readers to ensure they are using the codes, and following applicable guidelines, correctly. AAPC employees, agents, and staff make no representation, warranty, or guarantee that this compilation of information is error-free, and will bear no responsibility or liability for the results or consequences of the use of this course. This guide is a general summary that explains guidelines and principles in profitable, efficient health care organizations.

US Government Rights

This product includes CPT®, which is commercial technical data and/or computer data bases and/or commercial computer software and/or commercial computer software documentation, as applicable, which was developed exclusively at private expense by the American Medical Association, 515 North State Street, Chicago, Illinois, 60610. U.S. Government rights to use, modify, reproduce, release, perform, display, or disclose these technical data and/or computer data bases and/or computer software and/or computer software documentation are subject to the limited rights restrictions of DFARS 252.227-7015(b)(2) (November 1995), as applicable, for U.S. Department of Defense procurements and the limited rights restrictions of FAR 52.227-14 (June 1987) and/or subject to the restricted rights provision of FAR 52.227-14 (June 1987) and FAR 52.227-19 (June 1987), as applicable, and any applicable agency FAR Supplements, for non-Department of Defense Federal procurements.

AMA Disclaimer

CPT® copyright 2010 American Medical Association. All rights reserved.

Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT®, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.

CPT® is a registered trademark of the American Medical Association.

© 2010 AAPC

2480 South 3850 West, Suite B, Salt Lake City, Utah 84120

800-626-CODE (2633), Fax 801-236-2258, www.aapc.com

All rights reserved.

ISBN 978-1-935809-77-7

CPC®, CPC-H®, CPC-P®, CIRCC®, and CPMA™ are trademarks of AAPC.

Acknowledgements

Authors: Katherine Abel, CPC, CPMA, CPC-I, CRMS
Debra A. Apfel, RN, BA, CPC, CPMA
Carrie Bosela, CPC, CPC-I
Rhonda Buckholtz, CPC, CPC-I, CPMA, CGSC, CPEDC, COBGC, CENTC
Marcella Bucknam, CPC, CPC-H, CPC-P, CPC-I, CCC, COBGC
Shelly Cronin, CPC, CPMA, CANPC, CGIC, CGSC
Kelly Dennis, CPC, CPC-I, CANPC
Mary Divine, CPC, CPC-H, CPC-I, CUC
Brad Ericson, MPC, CPC, COSC
Deborah Grider, CPC, CPC-I, CPC-H, CPC-P, COBGC, CPMA, CPCD, CCS-P
Raemarie Jimenez, CPC, CPMA, CPC-I, CANPC, CRHC
Betty Johnson, CPC, CPC-H, CPC-I, CPCD
Dolly Perrine, CPC, CPMA, CPC-I, CUC
Jean Pryor, CPC, CPMA, CPC-I, CIMC
Dorothy Steed, CPC-H, CPMA, CPC-I, CEMC, CFPC
Kate Tierney, CPC, CPC-P, CEDC, CEMC, CGSC, COBGC
G. John Verhovshek, MA, CPC
Susan Ward, CPC, CPC-H, CPC-I, CEMC, CPCD, CPRC

Reviewers: Lynn Anderanin, CPC, CPC-I, COSC
Nicole Benjamin, CPC, CPC-I, CEDC
Jennifer Hume, CPC, CPMA, CEMC
Lindsay-Anne Jenkins, CPC, CPC-H, CIRCC, CPC-I
Vandna Kejariwal, CPC, CPC-H, CPC-I, CEDC
Barbara Pross, CPC, CPMA, CPC-I, CEDC, CEMC, COBGC
Carrie Lynn Rawlings, CPC, CPMA, CPC-I, CCVTC, CEMC
Alice Reybitz, RN, BA, CPC, CPC-H, CPC-I, CHI
Carrie Severson, CPC, CPC-H, CPC-P, CPMA, CPC-I
Kathy Skolnick, CPC, CPC-I
Charleen Yamasato, CPC, CPC-I

Production: Dianne Allred, Designer, Desktop Publishing
Michelle Dick, AAPC Medical Artist
Tina M. Smith, Cover Designer, Desktop Publishing

Chapter 1

The Business of Medicine

1

The Difference Between Hospital and Physician Services	2
How a Physician Office Works and How the Coder Fits into It	2
Understanding the Hierarchy of Providers	3
The Different Types of Payers.	3
Understanding RBRVS	4
Medical Necessity	7
The Advanced Beneficiary Notice	9
The Health Insurance Portability and Accountability Act of 1996 (HIPAA)	13
The Need for Compliance Rules and Audits	16
The OIG Work Plan.	17
What AAPC Will Do for You	20
Glossary	21
Sources	22

Chapter 2

Medical Terminology and Anatomy Review

23

Introduction	23
Objectives	23
Medical Terminology	23
Introduction to Anatomy	31
Integumentary System	33
Musculoskeletal System	37
Cardiovascular System	40
Lymphatic System	43
Respiratory System (Pulmonary System)	45
Digestive System	47
Urinary System	50
Reproductive Systems	50
Nervous System	53
Organs of Sense—Eye	54
Organs of Sense—Ear	55
Endocrine System	56
Hematologic (Hemic) System.	59
Immune System	59
Sources	61

Chapter 3

Introduction to ICD-9-CM

63

Introduction	63
Overview of ICD-9-CM Layout	63
Steps to Look Up a Diagnosis Code	70
ICD-9-CM Official Guidelines for Coding and Reporting	72
Glossary	83

Chapter 4

ICD-9-CM Coding Chapters 1–9

85

Introduction	85
Objectives	85
Chapter 1: Infectious and Parasitic Diseases (Codes 001–139)	85
Chapter 2: Neoplasms (Codes 140–239)	90
Chapter 3: Endocrine, Nutritional and Metabolic Diseases and Immunity Disorders (240–279) ..	95
Chapter 4: Diseases of Blood and Blood Forming Organs (280–289)	99
Chapter 5: Mental Disorders (290–319)	101
Chapter 6: Diseases of Nervous System and Sense Organs (320–389)	103
Chapter 7: Diseases of Circulatory System (390–459)	105
Chapter 8: Diseases of Respiratory System (460–519)	110
Chapter 9: Diseases of Digestive System (520–579)	113
Glossary	117

Chapter 5

ICD-9-CM Coding Chapters 10–19

119

Introduction	119
Objectives	119
Chapter 10: Diseases of Genitourinary System (580–629)	119
Chapter 11: Complications of Pregnancy, Childbirth, and the Puerperium (630–679)	124
Chapter 12: Diseases Skin & Subcutaneous Tissue (680–709)	128
Chapter 13: Diseases of Musculoskeletal and Connective Tissue (710–739)	130
Chapter 14: Congenital Anomalies (740–759)	132
Chapter 15: Newborn (Perinatal) Guidelines (760–779)	134
Chapter 16: Symptoms, Signs, and Ill-defined Conditions (780–799)	135
Chapter 17: Injury and Poisoning (800–999)	137
Chapter 18: Classification of Factors Influencing Health Status and Contact with Health Service (Supplemental V01–V91)	142
Chapter 19: Supplemental Classification of External Causes of Injury and Poisoning (E Codes, E800–E999)	145
Glossary	149

Chapter 6

Introduction to CPT®, Surgery Guidelines, HCPCS, and Modifiers 151

Introduction to CPT®	151
National Correct Coding Initiative (CCI)	156
Sequencing CPT® Codes	157
Resource-Based Relative Value Scale (RBRVS)	157
CPT® Assistant	162
Category II Codes and a Brief Overview of the Physician Quality Reporting Initiative	163
CPT® Category III Codes	163
Appendices	164
Surgery Guidelines	167
HCPCS Level II	172
HCPCS Level II Modifiers	175
Modifiers	183
Glossary	193

Chapter 7

Integumentary System

195

Introduction	195
Objectives	195
Anatomy and Medical Terminology	196
ICD-9-CM Coding	196
CPT®	202
HCPCS Level II Codes	226
Modifiers	226
Glossary	231

Chapter 8

Musculoskeletal System

233

Introduction	233
Objectives	233
Anatomy and Medical Terminology	233
ICD-9-CM Coding	236
CPT® Coding	241
HCPCS Level II	254
Modifiers	254
Glossary	261

Chapter 9

Respiratory, Hemic, Lymphatic, Mediastinum, and Diaphragm 263

Introduction	263
Objectives	263
Anatomy and Medical Terminology	263
ICD-9-CM	269
Current Procedural Terminology	274
HCPCS Level II	285
Modifiers	285
Glossary	290

Chapter 10

Cardiovascular Systems 293

Introduction	293
Objectives	293
Anatomy and Medical Terminology	293
ICD-9-CM	297
CPT®	302
Modifiers	322
HCPCS Level II	324
Documentation Dissection	325
Glossary	330

Chapter 11

Digestive System 333

Introduction	333
Objectives	333
Anatomy and Medical Terminology	333
ICD-9-CM	338
CPT® Digestive System (40490–49999)	342
Glossary	360

Chapter 12

Urinary System and Male Genital System 363

Introduction	363
Objectives	363
Anatomy and Medical Terminology	363
ICD-9-CM Coding	367
CPT® Coding	375
Modifiers	393
Glossary	399
Sources	403

Chapter 13	
Female Reproductive System	405
Objectives	405
Anatomy	405
ICD-9-CM	408
CPT® Coding	411
HCPCS Level II	414
Modifiers.....	414
Glossary	418
Sources	418
Chapter 14	
Endocrine and Nervous System	419
Introduction	419
Objectives	419
Anatomy	419
ICD-9-CM	428
CPT® Coding	435
HCPCS Level II	454
Modifiers.....	454
Glossary	464
Chapter 15	
Eye and Ocular Adnexa, Auditory Systems	465
Introduction	465
Objectives	465
Anatomy and Medical Terminology.....	465
ICD-9-CM	470
Symptoms and V Codes	473
Medicine Codes	484
The Medicine Section—Special Otorhinolaryngologic Services (92502–92700)	490
HCPCS Level II	495
Glossary	499
Chapter 16	
Anesthesia	501
Introduction	501
Anatomy and Medical Terminology.....	501
ICD-9-CM Coding	508
CPT® Coding	510
Modifiers.....	515
Anesthesia-Related Teaching Rules.....	519
Glossary	528

Chapter 17

Radiology

531

Introduction	531
Objectives	531
Anatomy and Medical Terminology	531
ICD-9-CM Coding	534
CPT®	537
Types of Radiological Services	538
Diagnostic Ultrasound	543
Radiologic Guidance	544
Breast, Mammography	545
Bone/Joint Studies	547
Radiation Oncology	547
Nuclear Medicine	549
HCPCS Level II	551
Modifiers	551
Glossary	555
Sources	557

Chapter 18

Pathology and Laboratory

559

Introduction	559
Objectives	559
Terminology	559
ICD-9-CM	561
CPT® Coding	566
HCPCS Level II	581
Modifiers	581
Glossary	587

Chapter 19

Evaluation and Management

589

Introduction	589
Objectives	589
Anatomy and Medical Terminology	589
ICD-9-CM Coding	590
CPT® Coding	590
Determine the Level of Services	601
HCPCS Level II Codes	632
Modifiers	632
Glossary	640

Chapter 20

Medicine

641

Introduction	641
Anti-infective Immunizations	641
Vaccines and Toxoids	642
Psychiatry	644
Biofeedback	647
Dialysis and End Stage Renal Disease Services	648
Gastroenterology	651
Ophthalmological Services	651
Special Otorhinolaryngologic Services	651
Cardiovascular Services	652
Noninvasive Vascular Diagnostic Studies	652
Pulmonary Studies	653
Allergy and Immunology	653
Endocrinology	656
Neurology and Neuromuscular Procedures	656
Medical Genetics and Genetic Counseling Services	656
Hydration, Therapeutic, Prophylactic, Diagnostic Injections/Infusions and Chemotherapy, Highly Complex Drugs or Highly Complex Biologic Agent Administration	659
Photodynamic Therapy	661
Special Dermatological Procedures	661
Physical Medicine and Rehabilitation	661
Acupuncture	664
Osteopathic Manipulative Treatment	664
Chiropractic Manipulative Treatment	665
Education and Training for Patient Self-Management	666
Non-Face-to-Face Nonphysician Services	667
Special Services, Procedures and Reports	668
Qualifying Circumstances for Anesthesia	671
Home Health Procedures and Services	672
Medication Therapy Management Services	675
Glossary	679

Chapter 21

What Lies Ahead

681

Prepare Now for Significant Health Care Changes	681
ICD-10-CM	681
The 5010 Electronic Transaction Standard	683
PQRI	684
The Focus on Prevention and Physicians' Changing Roles	685
Patient Care Moves Beyond the Physician Office	687
The Electronic Health Record	688
Focus on Fraud and Abuse	689

Appendix A

Answers and Rationales

691

Chapter 1.....	691
Chapter 2.....	695
Chapter 3.....	703
Chapter 4.....	707
Chapter 5.....	713
Chapter 6.....	719
Chapter 7.....	723
Chapter 8.....	727
Chapter 9.....	731
Chapter 10.....	735
Chapter 11.....	739
Chapter 12.....	743
Chapter 13.....	749
Chapter 14.....	751
Chapter 15.....	757
Chapter 16.....	763
Chapter 17.....	767
Chapter 18.....	771
Chapter 19.....	775
Chapter 20.....	785

Coding as a Profession

Each time you receive health care, a record is maintained of the resulting observations, medical or surgical interventions, and treatment outcomes. This record includes information concerning your symptoms and medical history, the results of examinations, reports of X-rays and laboratory tests, diagnoses, and treatment plans.

At its most basic, coding is the process of translating this written or dictated medical record into a series of numeric or alpha-numeric codes. There are separate code sets to describe diagnoses, medical and surgical services/procedures, and supplies. These code sets serve as a common “shorthand” language to ease data collection (for example, to track disease), to evaluate the quality of care, and to determine costs and reimbursement.

Coders may use several coding systems, such as those required for ambulatory settings, physician offices, or long-term care. Most coders specialize in coding patients’ medical information for insurance purposes. Physician-based coders review charts and assign CPT®, HCPCS Level II, and ICD-9-CM codes (about which you will learn more, later) for insurance billing. Because coding is tied directly to reimbursements, codes must be assigned correctly to ensure physician livelihood.

Proper code assignment is determined both by the content of the medical record and by the unique rules that govern each code set. Coding rules also may vary depending on who pays for the patient care. For instance, government programs such as Medicare may follow different guidelines than commercial insurers.

Medical care is complex and variable, as are coding requirements. Exceptional precision, therefore, is required to select the appropriate codes. Coders must master anatomy and terminology, and must be detail-oriented. Seemingly subtle differences in language, a patient’s condition, or the care provided can change code selection completely.

Technicians who specialize in coding are called medical coders or coding specialists. Medical coders assign a code to each diagnosis, service/procedure, and (when applicable) supply, using classification systems. The classification system determines the amount that health care providers will be reimbursed if the patient is covered by Medicare, Medicaid, or other insurance programs using the system.

If the medical record is inaccurate or incomplete, it will not translate properly to the language of codes and, for instance, reimbursement for services may be lost. The coder must evaluate the medical record for completeness and accuracy and communicate regularly with physicians and other health care professionals to clarify diagnoses or to obtain additional patient information. Coders may use computer programs to tabulate and analyze data to improve patient care, better control cost, provide documentation for use in legal actions, or use in research studies.

Technicians who specialize in coding inpatient hospital services are called health information coders, medical record coders, coder/abstractors, or coding specialists. These technicians assign a code to each diagnosis and procedure, relying on their knowledge of disease processes. Coders then use classification system software to assign the patient to one of several hundred “Medicare Severity diagnosis-related groups,” or MS-DRGs. The MS-DRG determines the amount that the hospital will be reimbursed if the patient is covered by Medicare or other insurance programs using the MS-DRG system.

Medical records and health information technicians also may specialize in cancer registry. Cancer (or tumor) registrars maintain facility, regional, and national databases of cancer patients. Registrars review patient records and pathology reports, and assign codes for the diagnosis and treatment of different cancers and selected benign tumors. Registrars conduct annual follow-ups on all patients in the registry to track their treatment, survival, and recovery. Physicians and

What AAPC Will Do for You

AAPC was founded in 1988 to provide education and professional certification to physician-based medical coders, and to elevate the standards of medical coding by providing student training, certification, and ongoing education, networking, and job opportunities. At press time, the AAPC has a membership base of over 100,000 worldwide, of which more than 69,000 are certified.

AAPC credentialed coders have proven mastery of CPT®, ICD-9-CM® and HCPCS Level II code sets, evaluation and management principles, and documentation guidelines. Certified Professional Coders (CPCs®) and other AAPC-credentialed coders represent the best in outpatient coding.

AAPC offers over 450 local chapters across the United States and in the Bahamas. Through local chapters AAPC members can obtain continuing education, gain leadership skills, and network.

AAPC specifies a Code of Ethics to promote and maintain the highest standard of professional service and conduct among its members. As a member of the AAPC, a coder is bound by the AAPC Code of Ethics.

AAPC Member Code of Ethics

Members of AAPC shall be dedicated to providing the highest standard of professional service for the betterment of health care to employers, clients, vendors and patients. Professional and personal behavior of AAPC members must be exemplary.

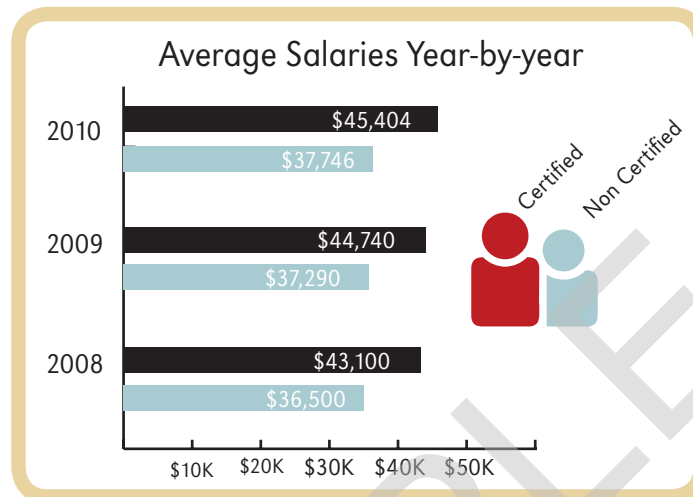
AAPC members shall:

- Strive to maintain and enhance the dignity, status, competence and standards of the health care industry.
- Maintain the highest standard of personal and professional conduct. Members shall respect the rights of patients, clients, employers and all other colleagues.
- Use only legal and ethical means in all professional dealings and shall refuse to cooperate with, or condone by silence, the actions of those who engage in fraudulent, deceptive or illegal acts.
- Respect and adhere to the laws and regulations of the land.
- Pursue excellence through continuing education in all areas applicable to our profession.
- Ensure that professional relationships with patients, employees, clients or employers are not exploited for personal gain.

Adherence to these standards assures public confidence in the integrity and service of medical coding, auditing, compliance and practice management professionals who are AAPC members.

Failure to adhere to these standards, as determined by AAPC, will result in the loss of credentials and membership with AAPC.

The quality of the AAPC certifications, along with the strength in its membership numbers, offers certified AAPC members credibility in the workforce—as well as higher wages. According to the the 2010 AAPC Salary Survey, salaries for credentialed coders rose 1.2 percent from the previous year, to an average of \$45,404. Even non-certified coders benefited from their affiliation with AAPC, with a 1.2 percent average salary gain to \$37,746.



Source: October 2010 *Coding Edge*, AAPC.

Glossary

ABN	Advance Beneficiary Notification	HCPCS	Healthcare Common Procedure Coding System
AMA	American Medical Association	HHS	Department of Health and Human Services
APC	Ambulatory Payment Classification	HIPAA	Health Insurance Portability and Accountability Act of 1996
ARRA	American Recovery and Reinvestment Act of 2009	HITECH	Health Information Technology for Economic and Clinical Health Act
ASC	Ambulatory Surgical Centers	HMO	Health Maintenance Organization
CF	Conversion Factor	ICD-9-CM	International Classification of Disease, 9th Clinical Manifestation
CMS	Centers for Medicare and Medicaid Services	LCD	Local Coverage Determinations
CPC™	Certified Professional Coder	MAC	Medicare Administrative Contractor
CPT®	Current Procedural Terminology	MP	Malpractice
EHR	Electronic Health Record	MS-DRG	Medicare Severity Diagnostic Related Group
E/M or E&M	Evaluation and Management	NCD	National Coverage Determination
GPCI	Geographic Practice Cost Index		

Introduction

A thorough knowledge of human anatomy is essential to successful coding, as is the ability to understand the medical terminology used to describe and document medical procedures and services. This chapter will introduce the basic elements of human anatomy and review medical vocabulary and terminology.

Objectives

- Understand the language of medicine
- Review word elements such as combining forms, prefixes, and suffixes
- Acquire an understanding of procedural and diagnostic terms
- Understand anatomy as it relates to coding

Medical Terminology

Every profession has its own “language,” and medicine is no exception. The language of medicine is more than 2,000 years old. Many medical terms used today were used by ancient Greeks and Romans. For example, the Latin phrase *pro re nata*, which means “when necessary,” is the origin of the medical abbreviation “PRN.” To code medical procedures and diagnoses accurately, you first must learn the language of medicine.

The best way to learn medical terminology is by understanding word parts or elements of medical language—root words, prefixes, and suffixes—that serve as the foundation of our medical vocabulary. When you understand the meanings of each word part, the interpretation of tens of thousands of complex medical terms becomes easier.

Word Elements

The base of the word is considered the “root.” Root words are terms that can stand alone as the main portion of a medical term. A prefix, suffix, and/or combining vowel may accompany it. The root word is the word part that holds the fundamental meaning of the medical term and each medical term contains at least one root or base word. A word can have more than one root.

Common root words consistently associated with the major body systems include:

Integumentary System

Term	Definition
Derm/o	skin
Dermat/o	skin
Hidr/o	sweat, perspiration
Kerat/o	keratin, horny layer of skin
Melan/o	dark, black, melanin
Onych/o	nail
Seb/o	sebum, sebaceous gland
Trich/o	hair

CPT® Example: 15780 Dermabrasion; total face

ICD-9-CM Example: 110.1 Onychomycosis

Introduction to Anatomy

The human body contains multiple organ systems. An organ system is a collection of body parts that depend on one another to achieve a mutual objective. The following organ systems will be addressed briefly here, and in greater depth in subsequent coding chapters as relevant:

- Integumentary
- Musculoskeletal
- Cardiovascular
- Lymphatic
- Respiratory
- Digestive
- Urinary
- Reproductive
- Nervous
- Organs of sense
- Eye
- Ear
- Endocrine
- Hematologic
- Immune

Anatomical Positions and Planes

For physicians, nurses, and other health care personnel to communicate accurately, they must use a standard form for body directions and orientations. This is done by the use of anatomical directions and planes. The standard body position is considered the “anatomical position.” The anatomical position is an upright, face-forward position with the arms by the side and palms facing forward. The feet are parallel and slightly apart.

Based on the anatomical position, the following directional terms are pertinent to understanding medical documentation:

Anterior (ventral)—toward the front of the body

Posterior (dorsal)—toward the back of the body

Medial—toward the midline of the body

Lateral—toward the side of the body

Proximal—nearer to the point of attachment or to a given reference point

Distal—farther from the point of attachment or from a given reference point

Superior (cranial)—above; toward the head

Inferior (caudal)—below; toward the lower end of the spine

Superficial (external)—closer to the surface of the body

Deep (internal)—closer to the center of the body

For radiological studies on the body, the body is often virtually cut along a flat surface called a plane. The most frequently used planes include:

Sagittal—cuts through the midline of the body from front to back and divides the body into right and left sections.

Frontal (coronal)—cuts at a right angle to the midline cut, from side to side, and divides the body into front (anterior) and back (posterior) sections.

Transverse (horizontal)—cuts horizontally through the body and separates the body into upper (superior) and lower (inferior) sections.

Application to Documentation

INDICATION: Left vocal cord paralysis

CT NECK WTH CONTRAST

TECHNIQUE: Axial CT cuts were obtained from the top of the orbits down to the thoracic inlet using 100 cc of Isovue 300. 13 mm axial CT cuts were also obtained through the larynx. Sagittal and coronal computer reconstruction images were also obtained.

Note that the use of anatomical planes—sagittal and coronal—explain what types of images were obtained.

Introduction

The ICD-9-CM coding system, used in the United States to translate medical terminology for diseases and procedures into numeric codes, originated in 17th century England. Statistical data was gathered through a system known as the London Bills of Mortality to collect information on the most frequent causes of death. By 1937, this ongoing statistical study of diseases evolved into the International List of Causes of Death. Over the years, the World Health Organization (WHO) used this information to assist in tracking morbidity and mortality for making statistical assessments of international health and disease trends. This led the way for the International Classification of Diseases, Ninth Revision (ICD-9).

By 1977, the worldwide recognition of ICD-9 prompted the federal National Centers for Health Statistics (NCHS) to expand and modify the statistical study with clinical information. In addition to providing statistics on basic health care, the modifications provided a way to index medical records, facilitate medical case reviews, and provide ambulatory and other medical care programs. The final changes resulted in the current ICD-9-CM the International Classification of Diseases, Ninth Revision, Clinical Modification. The ICD-9-CM is currently the national standard coding language (with some international application) used to define the patient's condition, diagnosis, disease, injury, anomaly, or other reason for medical services, procedures, and supplies.

The ICD-9-CM Coordination and Maintenance Committee, which is co-chaired by the NCHS and the Centers for Medicare & Medicaid Services (CMS), performs maintenance on ICD-9-CM. This committee meets twice a year in a public forum to discuss changes and revisions. After the final decisions are made, the changes are published in the *Federal Register* and become effective October 1 of each year.

The United States made the transition in 1999 to the 10th revision of the International Classification of Diseases for coding mortality (death statistics); the United States will migrate to ICD-10-CM on Oct. 1, 2013 for diagnoses reporting. The World Health Organization (WHO) published the 10th revision in 1994, and maintains this revision for international reporting of death of disease. ICD-10 accommodates advances in medical knowledge of disease and disease processes, where ICD-9 has become outdated and insufficient.

During this chapter, we will discuss:

- Overview of the ICD-9-CM layout
- ICD-9-CM conventions
- How to look up an ICD-9-CM code
- Official ICD-9-CM Coding Guidelines

Overview of ICD-9-CM Layout

ICD-9-CM is published in three (3) volumes:

Volume 1—Tabular List: Diagnosis codes organized in numerical order

Volume 2—Index to Diseases: Diagnosis codes organized in an alphabetic index

Volume 3—Alphabetic Index and Tabular Index of Procedures: Procedures performed in the inpatient setting

Volumes 1 and 2 are used by all coders to assign diagnosis codes for the services rendered, to establish medical necessity to support those services. The diagnosis codes support “why” the service is rendered. For example, a patient complains of pain in her right knee. The provider performs a knee X-ray. When the claim is submitted, the payer needs to know “why” the service was performed; that is your diagnosis code. In this example, we select a code to report the X-ray with a diagnosis code for knee pain to support the reason the

service was performed. We will discuss the proper selection of ICD-9-CM codes later in this chapter.

Medical Necessity

Establishing medical necessity is the first step in third-party reimbursement. Services may be covered by the patient's insurance but not paid because certain requirements have not been met. One of the most important requirements to receive payment for services is to establish medical necessity. You must justify the care provided by presenting the appropriate facts. Payers require the following information to determine the need for care:

1. Knowledge of the emergent nature or severity of the patient's complaint or condition.
2. All signs, symptoms, complaints, or background facts describing the reason for care. 3. The facts must be substantiated by the patient's medical record, and that record must be available to payers on request.

ICD-9-CM Volume 3 includes procedure codes, and typically is used by facilities only. Hospitals use Volume 3 in the outpatient facility for tracking purposes only and do not submit claims using Volume 3. Historically, the ICD-9-CM Volume 3 for procedures has had annual updates published each October. The ICD-10-PCS (Procedural Coding System) will be implemented concurrent to ICD-10-CM diagnostic codes in October of 2013.

We will focus on the proper use of ICD-9-CM Volume 1 and Volume 2 since Volume 3 is used by facilities to report procedures performed in the inpatient setting.

Volume 1: Tabular List

The Tabular List is a numerical listing of disease and injury. Although it is the first volume, often publishers will print Volume 1 after Volume 2 because the code search begins in Volume 2. The step-by-step code look up process will be discussed later in this chapter. There are 17 chapters for the classification of diseases and injury, grouped by etiology (cause) or anatomical (body) site. The Tabular List is organized into three-digit codes and their titles, called category codes. Some three-digit

codes are very specific and are not subdivided. These three-digit codes can stand alone to describe the condition being coded.

Most three digit categories (rubrics) have been subdivided with the addition of a decimal point, followed by either one or two additional digits. The fourth digit provides specificity or more information regarding etiology, site, or manifestation. Fourth digit subcategory codes take precedence over three digit category codes. Fourth and fifth digits are required where indicated; they are not optional. A valid diagnosis code can have three, four, or five digits, depending on the disease.

There are symbols throughout the tabular section to identify when a code requires a fourth or fifth digit.

√ 4th This symbol alerts the coder a fourth digit is required to accurately report the diagnosis in the category

√ 5th This symbol alerts the coder a fifth digit is required to accurately report the diagnosis in the category

When fourth and fifth digits are required, the additional digit options may be presented as sub terms, or at the beginning of the three-digit category.

Examples:

- √ 5th** 427.6 Premature beats
 427.60 Premature beats, unspecified
 427.61 Supraventricular premature beats
 427.69 Other
- √ 5th** 789.0 Abdominal pain
 [0-7, 9]

The digits included in the brackets instruct the coder that the only valid fifth-digit code will end in a 0-7 or 9. To select the correct fifth digit, refer to the beginning of category 789 for the sub classification designation:

Introduction

Proper ICD-9-CM code selection can be accomplished when you follow ICD-9-CM conventions and chapter-specific coding guidelines. The tabular section is organized into seventeen chapters that are categorized by etiology or anatomic site. Section I.C of the official coding guidelines includes instructions for the correct code selection and sequencing specific to each chapter. There are not official guidelines for each category within each chapter. Coders must know all the official coding guidelines, in addition to the conventions discussed in the previous chapter, to select diagnosis codes accurately.

In this chapter, we will discuss the chapter-specific coding guidelines for chapters 1 through 9 of the ICD-9-CM coding manual as well as common diagnoses in each chapter. These chapters include infectious and parasitic diseases, neoplasms, endocrine, nutritional, and metabolic diseases and immunity disorders, diseases of blood and blood forming organs, mental disorders, diseases of nervous system and sense organs, diseases of circulatory system, diseases of respiratory system, and diseases of digestive system. It is important to turn to the Official Coding Guidelines in the front of the ICD-9-CM coding manual to take notes for each of the chapter-specific coding guidelines.

The information contained in this chapter is meant as a supplement, and is not intended to replace the official coding guidelines found in the ICD-9-CM coding manual. It is important to read and understand every guideline and convention found in ICD-9-CM.

Objectives

- Understand the chapter specific official coding guidelines for ICD-9-CM Chapters 1-9.
- Recognize common diagnoses coded in each ICD-9-CM chapter.
- Recognize main terms to start the code search.

- Follow proper look up sequences to select diagnosis codes.

Chapter 1: Infectious and Parasitic Diseases (Codes 001–139)

This chapter includes infectious and parasitic diseases that can be transmitted easily. Infectious and parasitic diseases include communicable diseases, as well as those of unknown origin but possibly due to infectious organisms. Infective organisms in this chapter include bacteria, Chlamydia, fungi, helminthes, mycoplasmas, protozoans, rickettsias, and viruses.

When selecting codes from this category, two codes may be required. There are a few different ways codes from this category may be reported:

- two codes: one for the organism and one for the condition
- a combination code for the organism and condition
- a single code

Example

A patient is diagnosed with cryptococcal meningitis. Refer to meningitis in the Index to Diseases. Next, look for the sub term cryptococcal. In the index two codes are listed: 117.5 [321.0]. When you refer to 321.0 in the tabular index, there is a note that indicates “code first underlying disease (117.5).” This note is important because it identifies that two codes are required, and it provides the proper sequence of the codes. The same information can be found when looking at 117.5. There is a note at the beginning of the mycoses section (110-118) that instructs, “use additional code to identify manifestations.”

Practical Coding Note

Brackets indicate the code within the brackets is sequenced after the code preceding the brackets. It is important to pay close attention to the conventions for proper diagnosis code selection and sequencing.

The chapter-specific coding guidelines for this chapter include HIV (Human Immunodeficiency Virus), septicemia, systemic inflammatory response syndrome (SIRS), sepsis, severe sepsis, septic shock, and MRSA (Methicillin Resistant Staphylococcus aureus) conditions.

HIV (Human Immunodeficiency Virus)

HIV causes a broad spectrum of clinical problems that may mimic other diseases. Immediately after infection, and for a prolonged period (more than several months in a small number of persons), the exposed individual remains antibody negative, or in a carrier state. During this time, the virus reproduces rapidly until the immune system begins to react and/or targets are exhausted. Some conditions attributable to HIV or complicated by HIV Type 2 (079.53) include bacillary angiomatosis, candidiasis, oropharyngeal thrush, vulvovaginitis, cervical dysplasia, and constitutional symptoms such as fever or diarrhea lasting more than one month. Other conditions include hairy leukoplakia, oral herpes zoster (shingles), idiopathic thrombocytopenic purpura (ITP), listeriosis, pelvic inflammatory disease (PID), and peripheral neuropathy.

There are a few things to consider when selecting the proper code for HIV. Is the patient asymptomatic, or has she had an HIV-related condition in the past? What is the purpose of the admission or encounter? There are sequencing rules to follow for when the patient is being treated for an HIV-related condition versus a non-HIV related condition (eg, injury from a car accident).

HIV infection/illness is coded only for *confirmed* cases. Confirmation does not require documentation of a positive blood test or culture for HIV; the physician's diagnostic statement that the patient is HIV positive or has an HIV-related illness is sufficient. In the in-patient setting, HIV is the only condition that must be

confirmed to select the code. All other conditions documented as "probable," "suspected," "likely," "questionable," "probable," or "still to rule out" are coded as if they exist in the in-patient setting (Section III.C.).

The proper sequencing for HIV depends on the reason for the admission or encounter. When a patient is admitted for an HIV-related condition, 042 is sequenced first, followed by additional diagnosis codes for all reported HIV-related conditions. Conditions that always are considered HIV related include Kaposi's sarcoma, lymphoma, Pneumocystis carinii pneumonia (PCP), cryptococcal meningitis, and cytomegaloviral disease.

Example

A patient is admitted for Kaposi's sarcoma in the lungs. The correct codes and sequence are:

- 042 Human immunodeficiency virus (HIV) disease
- 176.4 Kaposi's sarcoma, lung

If a patient with HIV disease is admitted for an unrelated condition (eg, Fracture), the code for the unrelated condition is sequenced first. Code 042 is reported as an additional diagnosis, as are any HIV-related conditions.

V08 Asymptomatic human immunodeficiency virus (HIV) infection is applied when the patient is HIV positive and does not have any documented symptoms of an HIV-related illness. Do not use this code if the terms AIDS is used. If the patient is treated for any HIV-related illness, or is described as having any condition resulting from HIV positive status, use 042.

Patients with inconclusive HIV serology, but no definitive diagnosis or manifestations of the illness, may be assigned code 795.71 *Inconclusive serologic test for Human Immunodeficiency Virus (HIV)*.

Known prior diagnosis of an HIV-related illness should be coded to 042. After a patient has developed an HIV-related illness, the patient's condition should be assigned code 042 on every subsequent admission/encounter. Never assign 795.71 or V08 to a patient with an earlier diagnosis of AIDS or symptomatic HIV (042).

HIV infection status during pregnancy, childbirth, or the puerperium should be coded using 647.6x *Other*

Documentation Dissection

Case 1

Established patient here today for head congestion, cough, low grade fever, chills, and sweats, which have become worse over the last five days. Felt better after two days but then got worse again. She was exposed to a dog on Tuesday and symptoms started two days later. She has a history of recurrent/chronic sinusitis.

1. The provider documents the signs and symptoms the patient describes.
2. The provider documents the signs and symptoms the patient describes.
3. The provider's final diagnosis is acute sinusitis.

PMH/FamHx/SocHx reviewed. All other ROS negative beyond the above.

Vital signs as listed above. Pleasant female NAD. Voice is nasal. Nares are completely occluded despite using Nasonex. Oropharynx reveals a moderate amount of yellow mucus drainage, mildly hyperemic mucosa. TMs and EACs normal. Neck is supple with bilateral anterior cervical lymphadenopathy, minimally tender, no rigidity. She has tenderness over the nasal bridge and left side of the forehead .

Assessment & Plan

3. Acute sinusitis—Bactrim DS 1 p.o. b.i.d. times 10 days. Referral to Dr. Milligan. I have asked her to increase her Nasonex to twice per day. Medications and side effects reviewed with patient and patient voices understanding.

What are the CPT® and ICD-9-CM codes reported?

Code: 461.9

RATIONALE: The patient is diagnosed with acute sinusitis, but the sinus affected is not documented. From the Index of Diseases, look up sinusitis/acute. There is no additional information provided. The proper diagnosis is 461.9. It is not necessary to code the history of sinusitis because the patient is being treated for acute sinusitis.

Introduction

In this chapter, we will discuss coding guidelines specific to Chapters 10-19 in the ICD-9-CM manual. These chapters include:

- the genitourinary system
- complications of pregnancy, childbirth, and the puerperium
- diseases of the skin and subcutaneous tissue
- diseases of the musculoskeletal and connective tissue
- congenital anomalies; perinatal period
- signs, symptoms, and ill defined conditions
- injury and poisoning
- classification of factors influencing health status and contact with health service
- supplemental classification of external causes of injury and poisoning

We also will discuss the coding guidelines for each chapter.

Objectives

The objectives of this chapter are:

- Understand the chapter specific official coding guidelines for ICD-9-CM Chapters 10-19
- Recognize common diagnoses coded in each ICD-9-CM chapter
- Recognize main terms to start the code search
- Follow proper look up sequences to select diagnosis codes

Chapter 10: Diseases of Genitourinary System (580–629)

This ICD-9-CM chapter includes diagnoses of the urinary system and male and female genital organs. The urinary system includes the kidneys, bladder, ureters, and urethra. The male genital organs include the prostate, penis, testis, scrotum, and epididymis. The female genital organs include the breast, uterus, fallopian tubes, ovaries, vagina, and external genitalia.

Common diagnoses found in this chapter of ICD-9-CM include chronic kidney disease, acute kidney failure, urinary incontinence, urinary tract infections, kidney stones, benign prostatic hypertrophy, endometriosis, uterine fibroids, dysplasia, and pelvic inflammatory disease.

Chronic Kidney Disease

Chronic kidney disease (CKD) is the only disease in this ICD-9-CM chapter that has Official Coding Guidelines. When reporting chronic kidney disease, select the code with the proper fourth digit to identify the stage of CKD. Staging the CKD helps quantify the severity of the disease. Glomerular filtration rate (GFR) is used to determine the stage to CKD. The patient's age, weight, gender, and serum creatinine (waste product in the blood from muscle activity) is used to calculate the GFR. There are five stages of CKD:

- 585.1 Stage I—GFR > 90 ml/min/1.73 m²
- 585.2 Stage II—GFR 60-89 ml/min/1.73 m²
- 585.3 Stage III—GFR 30-59 ml/min/1.73 m²
- 585.4 Stage IV—GFR 15-29 ml/min/1.73 m²
- 585.5 Stage V — GFR < 15 ml/min/1.73 m²
- 585.6 End Stage Renal Disease (ESRD)—GFR < 15 ml/min/1.73 m², and the patient is on dialysis or undergoing kidney transplant.

Sometimes providers will document CKD and ESRD for the same patient. In such a case, report 585.6 *End stage renal disease* only.

Example

The patient presents with decreased urine output, nausea, vomiting, and drowsiness. The patient is diagnosed with CKD and ESRD. The decreased urine output, nausea, vomiting, and drowsiness are not reported because all are signs/symptoms of ESRD. According to the Official Coding Guidelines, the only diagnosis reported is 585.6.

Patients who undergo a kidney transplant still may have CKD because the kidneys are not restored to full function. Do not assume that a patient who has had a kidney transplant and chronic kidney disease developed the CKD because of the transplant. Select the code to report the stage of CKD and V42.0 to report kidney transplant status.

Patients with CKD can suffer from other conditions, such as hypertension, diabetes mellitus, anemia, and transplant complications. The guidelines for proper code selection and sequencing for CKD and these other conditions are found in the following ICD-9-CM guidelines:

- See I.C.3.a.4. for sequencing instructions for diabetes
- See I.C.4.a.1. for anemia in CKD
- See I.C.7.a.3. for hypertensive chronic kidney disease
- See I.C.17.f.2.b., Kidney transplant complications, for instructions on coding documented rejection or failure

Example

A Type II diabetic with stage III CKD presents to his physician's office for a six month follow-up visit. There is no indication the diabetes is uncontrolled. The proper diagnosis codes in the correct order are:

- 250.40 Diabetes with renal manifestations
- 585.3 Stage III CKD

Practical Coding Note

When CKD is diagnosed, review the medical record to identify the stage of CKD. This must be documented by the provider. When a patient has CKD and diabetes, the diabetes always is sequenced first. When a patient has hypertension or anemia and CKD, the condition for the primary reason for the encounter is sequenced first.

Example

A patient presents for an injection of Procrit® to treat the anemia she developed as a result of stage II CKD. The proper diagnosis codes and sequence are:

- 285.21 Anemia in chronic kidney disease
- 585.2 Stage II chronic kidney disease

Acute Renal Failure

Acute renal failure (ARF) is the rapid decrease in the kidneys ability to function. Common symptoms include anorexia, nausea, and vomiting. If the condition is left untreated, the patient may have seizures or become comatose. Do not confuse chronic kidney disease and acute renal failure: they are different conditions. CKD develops over time. ARF has a rapid onset. Select the code for the condition documented by the provider.

The code for ARF is found under acute kidney disease. The fourth digit identifies the location of a lesion of necrosis. If a part of the kidney is denied oxygen, the tissue becomes damaged or destroyed. Necrosis in kidney tissues will cause acute renal failure. The most common term that you will see documented is ARF or acute kidney failure. Without additional information, the only code option is 584.9 Acute kidney failure, with unspecified type of lesion.

Urinary Incontinence

Urinary incontinence is involuntary loss of urine. This condition can occur in both men and women, but is most common in women. The two most common, documented types of urinary incontinence are urge incontinence and stress incontinence. Urge incontinence is a sudden need to urinate followed by the involuntary

release of urine. There is not much time from feeling the need to urinate and the loss of the urine. Stress incontinence occurs with an activity such as coughing, sneezing, or exercise. To locate a code for urinary incontinence, you need to know if the patient is male or female, and the type of incontinence. If the underlying cause of the incontinence is known, it should be sequenced first.

Example

A patient with a uterine prolapse presents to her physician complaining of “wetting herself” every time she sneezes. The provider orders a urinalysis. The patient is diagnosed with uterine prolapse and stress incontinence. The correct codes and sequence are:

- 618.1 Uterine prolapse without mention of vaginal wall prolapse
- 625.6 Stress incontinence, female

Urinary Tract Infections

Urinary Tract Infections (UTI) are infections of any of the organs in the urinary tract (kidneys, bladder, or urethra). If the provider documents the specific organ, select a code for the specific organ rather than the code for the UTI. If the specific organ is not documented, the only option is 599.0 *Urinary tract infection, site not specified*. The instructions to “Use additional code to identify organism” is found under this code. Depending on the organism, you will report two codes or one combination code.

Example

A patient is diagnosed with a candida UTI. In the Index of Disease, there is a sub term “candidal specific to a urinary infection,” 112.2 *Candidiasis of other urogenital sites*. In this example, only one code is needed because the description includes the organism and the site.

Kidney Stones

Kidney stones also are called calculus or nephrolithiasis (Nephro = kidney, lith = calculus or stone, iasis = condition of). They are hard deposits made up of

minerals that form in the kidneys. Symptoms include pain (lower back, abdomen), the frequent urge to urinate, change in the color of urine, nausea, vomiting, fever, and chills.

Benign Prostatic Hypertrophy

Benign Prostatic Hypertrophy (BPH) is an enlargement of the prostate gland. The prostate gland surrounds the urethra. When it becomes enlarged, it can cause urinary symptoms such as a weak stream, urgency, and incomplete emptying of the bladder. When selecting the diagnosis for BPH, the fifth digit identifies whether or not the patient has urinary obstruction and other lower urinary tract infections. For example:

- 600.00 *Hypertrophy of prostate without urinary obstruction and the other lower urinary tract symptoms (LUTS)*
- 600.01 *Hypertrophy of prostate without urinary obstruction and the other lower urinary tract symptoms (LUTS)*

There is a note to “use additional code to identify symptoms” under 600.01. Usually you do not code for symptoms when a definitive disease is identified. In this case, the instructional note provides guidance that the code for the symptoms is required.

Example

A patient with BPH develops urinary retention. The proper codes and sequence are:

- 600.01
- 788.20 *Urinary retention*

Endometriosis

Endometriosis is a disorder of the female reproductive system where the inner lining (endometrium) of the uterus grows outside of the uterus (fallopian tubes, ovaries, organs in the abdominal, or pelvic organs). Symptoms include pelvic pain, excessive bleeding, painful periods, and infertility. The fourth digit identifies where the abnormal growth of tissue is found.

Example

A patient with very painful periods and excessive menstrual bleeding is diagnosed with endometriosis. The provider performs a laparoscopy to identify the extent of the condition. He documented that the endometrial tissue was surrounding the fallopian tubes. He performed a fulguration to remove the abnormal tissue growth. From the Index to Diseases, look up “endometriosis/fallopian tube.” The correct code is 617.2 *Endometriosis of the fallopian tube*. Do not report a code for the symptoms (excessive menstrual bleeding and painful periods) because a definitive diagnosis is determined.

Uterine Fibroids

Uterine fibroids (leiomyoma) are benign uterine tumors. Symptoms include heavy menstrual bleeding, prolonged periods, pelvic pain, and frequent urination. The fourth digit identifies where the fibroid is located. A submucous leiomyoma lies beneath the endometrium. An intramural leiomyoma lies within the uterine wall. A subserous leiomyoma lies under the serous surface of the uterus.

Cervical Dysplasia

Dysplasia, also documented as CIN (Cervical Intraepithelial Neoplasm), is abnormal growth or premalignant cells of the cervix. There are different grades of CIN that are diagnosed with a Pap smear. CIN I is mild dysplasia. CIN II is moderate dysplasia. CIN III is severe dysplasia that is considered carcinoma *in situ* of the cervix. The fifth digit identifies the grade of the dysplasia. For example:

622.10 *Dysplasia of cervix, unspecified*

622.11 *Mild dysplasia of cervix (CIN I)*

622.12 *Moderate dysplasia of cervix (CIN II)*

CIN III is coded as 233.1 *Carcinoma in situ of the cervix uteri*.

Key Suffixes, Prefixes

andr/o	male
colp/o	vagina
cyst/o	cyst
dips/o	thirst
glomerul/o	glomerulus
gyn/o	female
hydro/o	water
hyster/o	uterus
ket/o	ketone bodies/ketoacidosis
lith/o	stones
mamm/o	breast
mast/o	breast
meat/o	meatus
men/o	menstruation, month
metro/o	uterus, measure
nephro/o	kidney
obstetr/o	pregnancy/childbirth
olig/o	scant, few
oophor/o	ovary
orch/i	testicle
ov/o	egg
perine/o	perineum
peritone/o	peritoneum
prostat./o	prostate
pyel/o	renal pelvis
ren/o	kidney
salping/o	uterine tube, fallopian tube
test/o	testicle
tryg/o	trigone region/kidney
ur/o	urine
ureter/o	ureter
urethr/o	urethra
uria	urination/urinary condition
urin/o	urine
uter/o	uterus
vagin/o	vagina
vulvu/o	vulva

 Acronyms/Abbreviations

ARF	Acute Renal Failure	ESRD	End Stage Renal Disease
BV	Bacterial Vaginosis	LMP	Last Menstrual Period
CPP	Chronic Pelvic Pain	PMS	Premenstrual Syndrome
CKD	Chronic Kidney Disease	PSA	Prostate Specific Antigen
CRF	Chronic Renal Failure	SUI	Stress Urinary Incontinence
Cx	Cervix	UA	Urinalysis
DUB	Dysfunctional Uterine Bleeding	UTI	Urinary Tract infection

 Section Review 5.1

- 1. A 55-year-old female with right hydronephrosis presents for a cystourethroscopy with a retrograde pyelogram. What is the correct diagnosis code?**

 - 753.29
 - 120.0
 - 591
 - 581.9
 - 2. A patient returns to her gynecologist's office to review the results of her ultrasound. She had been experiencing heavy bleeding and painful menstruation. The results of the ultrasound reveal the patient has a uterine fibroid measuring 4.0 cm. Select the diagnosis code(s).**

 - 625.3, 626.2
 - 625.3, 626.8
 - 625.8
 - 218.9
 - 3. A patient diagnosed with BPH presents with complaints of urinary urgency. Select the diagnosis code(s).**

 - 600.00, 788.41
 - 600.01
 - 600.01, 788.63
 - 788.63
-

Introduction to CPT®

The Current Procedural Terminology (CPT®) coding manual is a compilation of guidelines, codes, and descriptions to report health care services performed by health care providers in the United States. The CPT® code set (Healthcare Common Procedural Coding System or HCPCS Level I) is copyrighted and maintained by American Medical Association (AMA) and is used with other code sets established by the Department of Health and Human Services (HHS) and other federally-named entities for health care reporting and reimbursement.

The first CPT® code set was developed and published by the AMA in 1966, and was established as an indexing/coding system to standardize terminology among physicians and other providers. In 1983, the Health Care Financing Administration (now the Centers for Medicare & Medicaid Services, or CMS) adopted CPT® and its own HCPCS Level II, mandating that these code sets be for use in all Medicare billings. These code sets largely standardized reporting of medical services, equipment, and supplies. Medicaid agencies and commercial health plans soon adopted the code sets and began to require CPT® and HCPCS Level II codes for reporting health care services for reimbursement.

Under the Health Insurance Portability and Accountability Act (HIPAA) of 1996, the Department of Health and Human Services (HHS) was required to establish national standards for electronic transaction of health care information. In August 2000, the Transactions and Code Sets Final Rule (45 CFR 160.103) named CPT®, HCPCS Level II, and their respective modifiers as standard code sets for national use. The CPT® code set includes three categories of medical nomenclature and descriptors: Category I, Category II, and Category III. These three different categories are contained within the CPT® codebook.

Category I CPT® codes utilize a five-digit numerical code, eg, 12345. These codes are the most commonly

used codes for medical services, procedures, and professional services by physicians and other qualified health care professionals. There are over 7,000 service codes plus titles and modifiers in the Category I CPT® code set. These codes are reviewed and updated annually by a panel established by the AMA, and the CPT® codes are provided to CMS. It is mandatory to use Category I CPT® codes for reporting and reimbursement purposes.

Category II CPT® codes are optional “performance measurement” tracking codes designed to minimize administrative burdens because they facilitate data collection about quality of care, per the AMA. Category II codes are used for the Physician Quality Reporting Initiative (PQRI) to provide outcome measurement for certain medical conditions. PQRI is an incentive-based program developed by CMS to record evidence-based measures and is discussed later in this chapter. Category II codes are located near the back of the CPT® codebook after the Medicine section. The format for Category II codes is alphanumeric, with the letter F in the last position, eg, 0001F. Category II codes are reported in addition to evaluation and management (E/M) services or clinical services CPT® Category I codes.

Example:

A physician counsels a patient regarding prescribed Statin therapy for coronary artery disease. Report code 4002F *Statin therapy, prescribed (CAD)* in addition to the appropriate level office visit code (99211–99215).

Category III CPT® codes are temporary codes assigned by the AMA for emerging technology, services, and procedures. Category III codes are located after the Category II code section. The format for Category III codes also has an alphanumeric structure, except with a T in the last position, eg, 0075T. Unlike the Category II CPT® codes, Category III codes can be reported alone, without an additional Category I code.

Example:

A patient has gastric stimulation electrodes implanted in the lesser curvature of the stomach via laparotomy for the treatment of morbid obesity. Report code 0157T *Laparotomy, implantation or replacement of gastric stimulation electrodes, lesser curvature (eg, morbid obesity).*

The AMA updates the CPT® manual annually. The additions and revisions can include:

- Additional code additions
- Revisions to the code verbiage
- Revisions to the guidelines
- Deletions of any outdated codes

The Organization of the CPT® Coding Manual

To assign the codes contained within the CPT® coding manual properly, you first must understand the organizational characteristics within it. The CPT® coding manual is organized by:

- CPT® sections—Category I has six sections that include services and surgical procedures separated into subsections.
- Section Guidelines
- Section Table of Contents
- Notes
- Category II codes (0001F–7025F)
- Category III codes (0019T–0259T)
- Appendices A–N
- Alphabetized Index

The CPT® subsections also include:

- Indicator Icons
- Boldfaced type
- Italicized type
- Cross-referenced terms
- Anatomy illustrations
- Procedural reviews that aid with medical terminology and anatomy

Introduction Guidelines in the CPT® Coding Manual

The guidelines in the CPT® coding manual are invaluable to professional coders and define the information necessary for choosing the correct code to describe the medical services provided.

Practical Coding Note

Review each and every guideline in your coding manuals. Underline or highlight specific coding information within the guidelines.

Guidelines are referenced in the introduction of each section and subsection of the CPT® manual. Guidelines in one section do not apply to another section within the CPT® manual.

CPT® Conventions and Iconography

An established set of conventions and symbols are used throughout the CPT® manual. They are designed to communicate information clearly and in an easily recognizable manner.

; Semicolon and Indented Procedure—The use of the semicolon was developed so that CPT® did not have to list full descriptions for every code in the publication. A CPT® procedure or service code that contains a semicolon is divided into two parts:

- (a) The words before the semi-colon are considered the “common procedure” in the code descriptor.
- (b) The indented descriptor is dependent on the preceding “common procedure” code descriptor.
- (c) It is not necessary to report the main code (eg, 00160) when reporting the indented codes (eg, 00162 or 00164).

Example

00160	Anesthesia for procedures on nose and accessory sinuses; not otherwise specified
00162	radical surgery

Example:

Using the RBRVS system and RVUs for the sequencing of CPT® codes, while maintaining correct coding guidelines, is seen in this example:

Two polyps were identified during a colonoscopy. The physician performed a biopsy on one polyp and removed a second polyp at a different site, during the same procedure. The CPT® codes used for reporting this procedure were 45380 and 45385.

Referencing the RVU lookup function on the CMS website: www.cms.gov/PFSlookup, we find the following information:

HCPC	Short Description	WORK RVU	Transitioned Non-Fac PE RVU	Transitioned Facility PE RVU	MP RVU
45380	Colonoscopy and biopsy	4.43	7.5	2.21	0.48
45385	Lesion removal colonoscopy	5.3	8.13	2.58	0.58

If this example were to be calculated in the **state of Alabama** the calculations would be:

HCPC	Short Description	Alabama—Non Facility RVU	Alabama—Facility RVU
45380	Colonoscopy and biopsy	\$405.08	\$238.70
45385	Lesion removal colonoscopy	\$458.23	\$283.66

$$(4.43 \times 0.982) = (4.35026)$$

$$+ (7.5 \times 0.853) = (6.3975)$$

$$+ (0.48 \times 0.496) = (0.23808)$$

$$= 10.98584 \times \$36.8729$$

HCPCS 45380 Total for Non-facility RVU = \$405.08

$$(4.43 \times 0.982) = (4.35026)$$

$$+ (2.21 \times 0.853) = (1.88513)$$

$$+ (0.48 \times 0.496) = (0.23808)$$

$$= 6.47347 \times \$36.8729$$

HCPCS 45380 Total for Facility RVU = \$238.70

Category II Codes and a Brief Overview of the Physician Quality Reporting Initiative

CPT® Category II Codes

CPT® Category II Codes is the code set used voluntarily by physicians to report performance measurement. Category II CPT® codes are recognized by their four numerical digits followed by the letter “F” (eg 1234F), and have no RVU value because the codes typically describe clinical components included in E/M services. Category II codes also may describe results from tests and other procedures identified as measurable data for quality patient care. Appendix H in the CPT® manual previously contained information regarding the use of Category II codes for performance measurement, exclusion modifiers, measures, and the measure’s source; however, it has been moved to a website because the information is constantly expanding. The website is www.ama-assn.org/go/CPT®.

CPT® II codes are updated throughout the year and are posted on the AMA website: www.ama-assn.org. Professional advisory entities collect the performance-measured evidence-based data to measure the quality of patient care. CPT® Category II codes and/or HCPCS G-codes make up the Quality Data Codes (QDCs) for Physician Quality Reporting Initiative established by CMS.

Physician Quality Reporting Initiative (PQRI)

In 2006, the Tax Relief and Health Care Act authorized CMS to establish a physician quality reporting system. CMS named the program “Physician Quality Reporting Initiative (PQRI). The program was implemented in 2007 and included an incentive payment, to qualified physicians, who voluntarily chose to report quality measures furnished to Medicare Part B beneficiaries (including Railroad Retirement Board and Medicare Secondary Payer).

The quality measures of PQRI are changed each year and are developed from evidence-based guidelines of care. The incentive payments are paid to Eligible

Professionals (EPs). Information on the PQRI program and a listing of Eligible Professionals may be located on the CMS website, www.cms.gov/PQRI. Physicians who successfully report the specified quality measures may be eligible to receive an incentive payment equaling 2 percent of their Medicare Physician Fee Schedule total estimated allowed charges, furnished during the reporting period. Annual PQRI measure codes may be referenced from the CMS website: www.cms.gov/PQRI/15_MeasuresCodes.asp.

The CMS PQRI Measures Groups Specifications Manual explains methods for reporting measure groups and coding information required for measure submissions. The PQRI Measures Groups Specifications Manual is posted annually on the CMS website: www.cms.gov/PQRI. The manual includes instructions for claim-based or registry-based measure submissions. It also instructs how to report the Quality Data Codes (QDCs).

When billing for medical charges and reporting QDCs for performance measures on the CMS 1500 form, only one diagnosis from the claim should be referenced in the diagnosis pointer field (field #24e), even though all diagnoses reported on the claim will be included in PQRI analysis. In addition, when reporting QDCs on medical claims, a line-item charge must be submitted. Depending on the billing system software used for claim submissions, a line item charge of \$0.00 should be entered for the QDC. If the billing system software does not allow for a \$0.00 line item charge, a nominal charge of \$0.01 may be entered. Whether CMS is charged the \$0.00 or the \$0.01 for the PQRI QDC, the line item will be denied for payment. After the claim is processed and PQRI measure data is collected and recorded by CMS, a Remittance Advice (RA) will be issued to the EP. The RA will list the remark code (N365) message for the PQRI QDC line item. N365 reads: “This procedure code is not payable. It is for reporting/information purposes only” (www.cmsremarkcodes.info/RemarkCodesAll.aspx).

CPT® Category III Codes

Category III CPT® codes use four numerical digits followed by the letter “T”, such as 1234T. The code set contains temporary codes used for data collection in the Food and Drug Administration (FDA) approval process regarding new and emerging technology,

7. CPT® Category III codes are reported to indicate which type of service or procedure?

- A. New and emerging
- B. Experimental
- C. Unlisted
- D. New and extended

8. Which CPT® Appendix lists clinical examples for E/M coding?

- A. B
- B. C
- C. D
- D. G

Surgery Guidelines

Surgery is a medical specialty that uses operative manual and/or instrumental technique to diagnosis and/or treat injury, deformity, and disease. The condition of the patient determines which medical procedure is performed, including all variables. Therefore, CPT® codes represent a variety of services. When defining specific services that are included in a given CPT® surgical code, the following services are found to be inclusive, not separately billable.

- Local infiltration, metacarpal/metatarsal/digital block or topical anesthesia
- Subsequent to the decision for surgery, one related E/M encounter on the date immediately prior to or on the date of procedure (including history and physical)
- Immediate postoperative care, including dictating operative notes, talking with the family and other physicians
- Writing orders
- Evaluating the patient in the postanesthesia recovery area
- Typical postoperative follow-up care

Global Package As Defined By CPT®

Payment for surgical procedures includes a standard package of preoperative, intraoperative, and postoperative services. Preoperative and postoperative periods will differ based on the classifications of the service as a major or minor surgery.

The services included in the global surgical package may be furnished in any service location, eg, a hospital, an ambulatory surgical center (ACS), or physician office. Visits to a patient in an intensive care or critical care unit are also included when made by the surgeon. Under some circumstances, critical care services (99291–99292) are not considered part of the global package and are reimbursed separately.

Global Package —Non-Medicare Health Plans

Although most health plans have adopted the CMS global package concept, some health plans write variances within their policies. The health plan has leniency to determine if a global period is applicable to surgery procedures. If the health plan determines a global package, it will establish postoperative periods of 0, 10, or 90 days to surgical CPT® codes. Although the number of postoperative period days, 0, 10, or 90 days, remain consistent with Medicare guidelines, the variances of

4. Which modifiers are appended to E/M codes to report payable services within the global package?
- A. 24, 26, 51
 - B. 24, 25, 47
 - C. 24, 25, 57
 - D. 24, 26, 57
5. What is the CMS global period status indicator for endoscopies?
- A. 000
 - B. 010
 - C. 030
 - D. None of the above

HCPCS Level II

HCPCS Level II codes were created by CMS to report supplies, materials, injections, and certain procedures and services that are not defined in the CPT®. CMS updates the codes continually, and they are recognized as a national set of standard alphanumeric codes and modifiers.

Currently, there are national HCPCS Level II codes representing over 4,000 separate categories of like items or services that encompass millions of products from different manufacturers. In submitting claims, suppliers are required to use one of these codes to identify the items they are billing. The descriptor that is assigned to a code represents the official definition of the items and services that can be billed using that code. To avoid any appearance of endorsement of a particular product through HCPCS Level II, the descriptors that are used to identify codes do not refer to specific products. For this reason, brand or trade names are normally not used to describe the products represented by a code.

Codes begin with a single letter followed by four digits. They are grouped according to type of service or supply within a section of HCPCS Level II that begins with a specific letter.

In the HCPCS Level II book, information and instructions that apply to a specific category are found at the beginning of each major category. Understanding these

guidelines is vital to the process of assigning code(s) to accurately represent the provision of services, equipment, and supplies.

There are several types of HCPCS Level II codes depending on the purpose for the codes and who is responsible for establishing and maintaining them.

Permanent National Codes

Representatives from the Blue Cross/Blue Shield Association (BCBSA), the Health Insurance Association of America (HIAA), and CMS maintain the national permanent HCPCS Level II codes. The panel makes decisions about additions, revisions, and deletions to the permanent national alphanumeric codes, which are used by private and public health insurers. Since HCPCS Level II is a national coding system, none of the parties, including CMS, can make unilateral decisions regarding permanent Level II national codes. Permanent national codes are updated once a year on January 1, but codes can be added or deleted throughout the year.

Miscellaneous Codes

National codes also include “miscellaneous/not otherwise classified” codes, which are used when there is no existing national code that describes the item or service being billed. Claims with miscellaneous codes are manually reviewed, the item or service being billed must be clearly described, and pricing information must be

Introduction

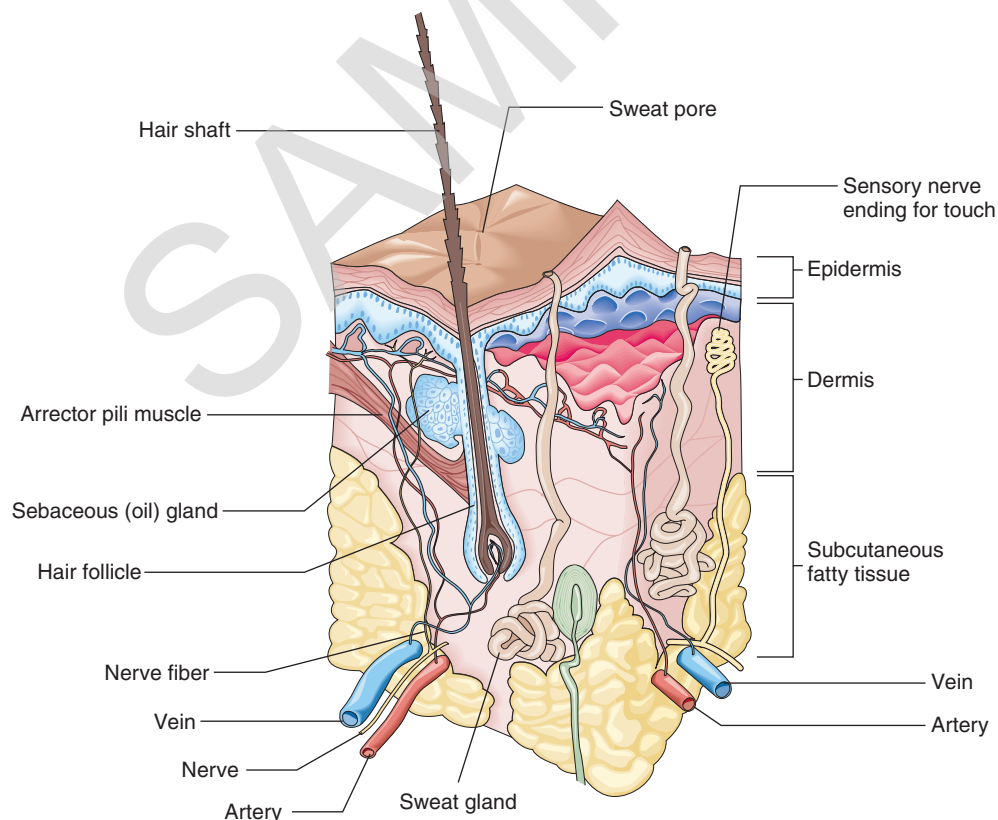
The integumentary system is made up of structures that cover the human body: skin, hair, nails, sebaceous glands, and the sweat glands. The breasts and subcutaneous tissue are also included in the integumentary system.

Objectives

- Understand the key components of the skin, hair, nails, and breasts
- Define key terms

- Understand the most common pathologies affecting the skin, hair, nails, and breasts
- Understand procedures and surgeries as they relate to the skin, hair, nails, and breasts
- Recognize common eponyms and acronyms for this section
- Identify when other sections of CPT® or ICD-9-CM should be accessed
- Know when HCPCS Level II codes or modifiers are appropriate

Structures of the Skin



Source: EHRlich/SCHROEDER. *Medical Terminology for Health Professions*, 6E. © 2009 Delmar Learning, a part of Cengage Learning, Inc. Reproduced by permission. www.cengage.com/permissions

Anatomy and Medical Terminology

The skin is the largest organ system in the body. The skin itself is made up of two primary layers. The epidermis is the outermost portion of skin. It is comprised of many layers but does not contain blood vessels. It contains the pigment melanin that gives skin color and allows the skin to tan. The epidermis contains different types of cells; the most common are squamous cells (which are flat, scaly cells on the surface of the skin), basal cells (which are round cells) and melanocytes (which give the skin color).

The dermis is under the epidermis and performs most of the skin's functions. The dermis consists of blood vessels, connective tissue, nerves, lymph vessels, glands, receptors and hair shafts. The dermis is made up of two layers, the upper portion is referred to as the papillary layer and the lower portion is the reticular layer. The dermis contains several important glands, such as the sebaceous glands that secrete oil to keep the skin and hair soft and moist.

The subcutaneous tissue is located under the dermis is primarily fat cells that give the skin a smooth appearance and act as a cushion. The subcutaneous tissue is not a layer of the skin, but is just below the skin. It is very important to understand the layers of the skin to comprehend better closures that will be discussed later in this chapter.

The protein keratin stiffens epidermal tissue to form finger nails. Nails grow from a thin area called the nail matrix, at an average rate of about 1 mm per week.

ICD-9-CM Coding

The diagnostic codes for the skin are found primarily in three chapters in ICD-9-CM:

- Chapter 2—Neoplasms
- Chapter 12—Diseases of the Skin and Subcutaneous Tissue
- Chapter 17—Injury and Poisoning

In addition to codes found in these chapters, we also will discuss codes for disorders of the breast (categories 10-612). Diagnoses for the breast are typically found in ICD-9-CM chapter 10—Diseases of the Genitourinary System. We will cover them in this section because procedures performed on the breast are found in the Integumentary System in the CPT® codebook.

Neoplasms

It is important that the coding guidelines are read and understood when it comes to applying neoplasm codes to a patient record. First one must understand how to use the neoplasm table.

	Malignant			Benign	Uncertain Behavior	Unspecified
	Primary	Secondary	Ca <i>in situ</i>			
Neoplasm, neoplastic						
Skin NEC	173.9	198.2	232.9	216.9	238.2	239.2
ear (external)	173.2	198.2	232.2	216.2	238.2	239.2
elbow	173.6	198.2	232.6	216.6	238.2	239.2
eyebrow	173.3	198.2	232.3	216.3	238.2	239.2
eyelid	173.1	198.2	232.1	216.1	238.2	239.2
face NEC	173.3	198.2	232.3	216.3	238.2	239.2
female genital organs	184.4	198.82	233.30	221.2	236.3	239.5

Example 2:

Preoperative Diagnosis: Squamous cell carcinoma, left lower eyelid

1. **Postoperative Diagnosis:** Squamous cell carcinoma, left lower eyelid

Procedure Performed: Excision of squamous cell carcinoma of the left lower eyelid measuring 1.0 cm with a 2.0 cm squared rhomboid flap repair.

1. Post operative diagnosis with location.

Squamous cell carcinoma is a malignant lesion.

2. Procedure performed.

3. Supporting documentation for rotation/rhomboid flap.

2.

Indications for Surgery: The patient is an 80-year-old female with a biopsy-proven squamous cell carcinoma of her left lower eyelid. With her permission Dr. Violet marked this area for excision with gross normal margins of 2 mm, and drew her planned rhomboid flap for repair. The patient observed these markings in a mirror so she could understand the surgery, agreed on the location and we proceeded.

Description of Procedure: The patient was given 1 g of IV Ancef. The area was infiltrated with local anesthetic. The face was prepped and draped in a sterile fashion. Dr. Violet then excised the lesion as drawn into the subcutaneous fat. Suture was used to mark the specimen at its medial tip and this was labeled 12 o'clock. Meticulous hemostasis had been achieved using the Bovie cautery. Dr. Violet put a stitch initially in this wound to see if she could close it primarily; however, it was pulling down on the patient's lower eyelid or creating ectropion, and because of that she felt she needed to proceed with the planned rhomboid flap reconstruction. She incised the rhomboid flap as she had drawn it, elevating the flap with the full thickness of skin and subcutaneous fat and rotated into the defect. The donor site was closed and the flap was inset in layers using 4-0 Monocryl, 5-0 Monocryl and 6-0 Prolene. Loupe magnification was used throughout the procedure, and the patient tolerated the procedure well.

3.

What are the CPT® and ICD-9-CM codes reported?

CPT® codes: CPT® code 14060 is used to describe the 2.0 cm squared flap repair, even though the procedure indicates the removal of the lesion, that excision is included in the flap reconstruction.

ICD-9-CM codes: 173.1—Squamous cell carcinoma has a Morphology Code of M8070/3. The /3 indicates a malignant neoplasm. The code for neoplasm, skin, eyelid, malignant is 173.1.

Introduction

In this chapter, we will look at how muscles and bones work together to form the framework for the body, and the many procedures that are used to keep this system in shape.

Objectives

- Understand the components of the musculoskeletal system
- Define key terms
- Understand the most common pathologies affecting these organs
- Understand orthopedic surgeries and how they relate to pathologies
- Recognize common eponyms and acronyms
- Identify when other sections of CPT® or ICD-9-CM should be accessed
- Know when HCPCS Level II codes or modifiers are appropriate

Anatomy and Medical Terminology

The musculoskeletal system contains 206 bones and more than 600 muscles, as well as ligaments, tendons, and cartilage.

The skeleton is divided into two parts: The axial skeleton and the appendicular skeleton. The axial skeleton consists of the bones of the skull, the chest, and the spine. The appendicular skeleton includes the remaining bones of the upper and lower limbs, shoulders, and pelvis.

The primary functions of the musculoskeletal system are to provide protection for the internal organs and to assist with movement. The skeleton is the basic framework for the entire body, and the bones store calcium and produce blood cells. The muscles assist with heat

production and posture. Ligaments attach bones to other bones, and tendons attach muscles to bones. Cartilage acts as a cushion between bones in a joint.

Proficiency in coding for the musculoskeletal system requires a good working knowledge of human anatomy, including location, function, and movement of all the structures involved. An understanding of surgical terms used to describe procedures performed will provide additional confidence when choosing appropriate codes. There are many eponyms and acronyms used in orthopedic surgery; a good medical dictionary is essential. Quite a few fractures types are named after a person (eponym), and many procedures are described by acronyms (for example, ORIF is an open reduction with internal fixation).

There are three basic muscle types: Striated (skeletal) muscle, smooth (visceral) muscle, and cardiac muscle. The musculoskeletal system includes mostly striated muscle, which helps control body movement. Cardiac muscle is found only in the heart. Smooth muscle is involuntary muscle found in the internal organs, such as in the bowels and blood vessels.

Muscles can be named based on their size (for example, gluteus maximus), shape (for example, the deltoid is shaped like a delta or triangle), location (for example, the sternocleidomastoid is attached to the sternum, clavicle, and mastoid process), action (for example, flexor carpi ulnaris), number of attachments (for example, the triceps brachii has a three-headed origin), or the direction of its fibers (for example, the fibers of the transverse abdominus run horizontally),

When muscles are named for their action, words like flexor and extensor are included in the name. Names of muscle action include:

Flexor—A muscle that causes flexion or bending of a limb or body part.

Acronyms (continued)

IM	intramuscular	PCL	posterior cruciate ligament
IP	interphalangeal	PIP	proximal interphalangeal joint
IT	iliotibial	PT	physical therapy
LE	lower extremity	RA	rheumatoid arthritis
LP	lumbar puncture	RF	rheumatoid factor
L-spine	lumbar spine	ROM	range of motion
L1-L5	lumbar vertebrae	RT	right side
LS	lumbosacral (spine)	SI	sacroiliac (joint)
LT	left side	SLAP	superior labral anterior posterior
MCL	medial collateral ligament	TENS	transcutaneous electrical nerve stimulation
MCP	metacarpophalangeal (joint)	THR	total hip replacement
MRI	magnetic resonance imaging	T-spine	thoracic spine
MTP	metatarsophalangeal (joint)	T1-T12	thoracic vertebrae
NSAID	nonsteroidal anti-inflammatory drug	TMJ	temporomandibular joint
ORIF	open reduction internal fixation	UE	upper extremity

Section Review 8.2

1. A fracture in which the bone is splintered into several pieces and protruding through the skin would be classified in ICD-9-CM as a:
 - A. Greenstick fracture
 - B. Pathologic fracture
 - C. Closed fracture
 - D. Open fracture
2. In ICD-9-CM, nursemaid's elbow is listed under:
 - A. Sprain, elbow
 - B. Dislocation, shoulder
 - C. Contusion, elbow
 - D. Dislocation, elbow

Glossary

Ankylosing Spondylitis—A disease that causes the bones of the spine to grow together.

Anterior Cruciate Ligament (ACL)—The ligament, located in the center of the knee, which controls rotation and forward movement of the tibia (shin bone).

Arthritis—Inflammation of a joint; usually accompanied by pain, swelling, and sometimes changes in structure.

Arthrogram—An X-ray to view bone structures, following an injection of a contrast fluid into a joint area.

Arthroscopy—A minimally-invasive, diagnostic and therapeutic endoscopic procedure used for conditions of a joint.

Bursa—A fluid-filled sac located between a bone and a tendon or muscle.

Bursitis—Swelling and irritation of the bursa.

Bunion—Inflammation and deformity in the joint of the big toe.

Carpal Tunnel Syndrome—The median nerve is compressed as it passes through the carpal tunnel (a confined space) in the wrist.

Cartilage—A smooth material that covers bone ends of a joint to cushion the bone; allows the joint to move easily.

Cubital Tunnel—A tunnel of muscle, ligament, and bone on the inside of the elbow.

Dislocation—Occurs when extreme force is put on a ligament, causing the two bone ends to separate.

Electromyogram (EMG)—A test to evaluate nerve and muscle function.

Femur—Thighbone.

Fibromyalgia (Fibrositis)—A chronic, widespread pain in muscles and soft tissues surrounding the joints throughout the body.

Fracture—A break in a bone.

Gout—A result of a defect in body chemistry (such as uric acid in the joint fluid); this painful condition most often attacks small joints.

Hammertoe—A bent deformity in the middle toe joint.

Heel Spur—A bone growth on the heel bone.

Humerus—The bone of the upper arm.

Inflammation—A normal reaction to injury or disease, which results in swelling, pain, and stiffness.

Joint—The place where the ends of two or more bones meet.

Juvenile Rheumatoid Arthritis (JRA)—A form of arthritis in children ages 16 or younger that causes inflammation and stiffness of joints.

Lateral Collateral Ligament (LCL)—The ligament that gives stability to the outer knee.

Lateral Epicondylitis (Tennis Elbow)—Caused by damage to the tendons that bend the wrist backward away from the palm.

Ligaments—A white, shiny, flexible band of fibrous tissue that binds joints together and connects bones and cartilage.

Medial Collateral Ligament (MCL)—The ligament that gives stability to the inner knee.

Medial Epicondylitis—Condition in the elbow caused by damage to the tendons that bend the wrist toward the palm.

Meniscus—A crescent-shaped disc of connective tissue between the bones of the knees that acts as a shock absorber to cushion the lower part of the leg.

Morton's Neuroma—A pinched nerve that usually causes pain between the third and fourth toes

Musculoskeletal System—The complex system involving the body's muscles and skeleton, and including the joints, ligaments, tendons, and nerves.

Myelogram—Injection of a dye or contrast material into the spinal canal; a specific X-ray study that also allows careful evaluation of the spinal canal and nerve roots.

Introduction

This chapter will discuss CPT®, ICD-9-CM, and HCPCS Level II coding for the respiratory system, the hemic and lymphatic systems, and the mediastinum and diaphragm. Codes found in the respiratory portion of CPT® (30000–32999) describe procedures of the nose, accessory sinuses, larynx (voice box), trachea and bronchi, and the lungs and pleura. The mediastinum is the central cavity of the chest. CPT® 39000–39499 describes procedures of the cavity itself, not of the organs (such as the heart) contained within it. The thoracic diaphragm (CPT® 39501–39599) divides the thoracic cavity from the abdomen, and enables respiration and speech. The hemic and lymphatic systems (CPT® 38100–38999) include the spleen and bone marrow, and the lymph nodes and lymphatic channels.

ICD-9-CM codes for these systems will be found throughout the ICD-9-CM manual, and will include V codes (for screening services) and neoplasm coding.

Objectives

- Understand basic anatomy and functions of the respiratory system, the hemic and lymphatic systems, and the mediastinum and diaphragm
- Define key terms relevant to these systems
- Provide practical advice to overcome the most common CPT® coding dilemmas involving these systems.
- Discuss application of most-frequently used CPT® modifiers
- Review diagnoses common to the respiratory system, the hemic and lymphatic systems, and the mediastinum and diaphragm
- Introduce HCPCS Level II codes and coding guidelines as they apply to these systems
- Supply hands-on examples and review material to improve your mastery of the above concepts

Anatomy and Medical Terminology

The Respiratory System

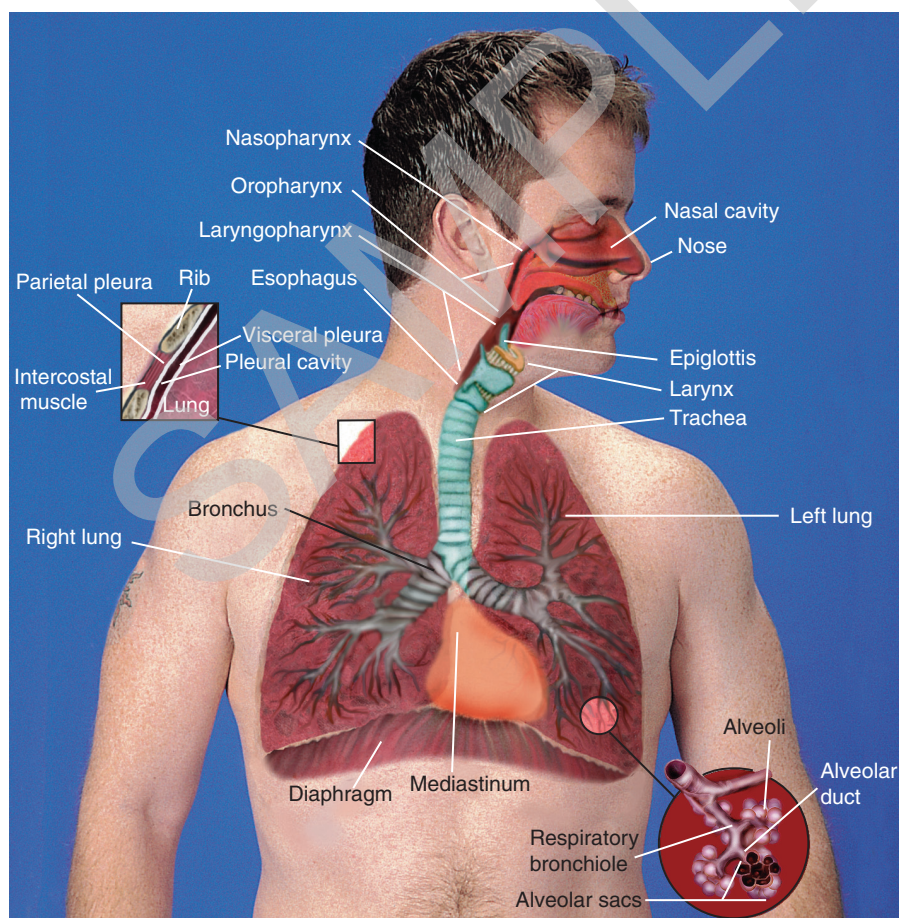
Respiration (breathing) is critical to all cellular activity. The pathway of the human respiratory system begins with oxygenated air entering the nostrils. Within the nose, fine hairs trap larger inhaled particles and form the body's first defense against harmful environmental pathogens, such as germs, fungi, and spores. The cilia are microscopic filaments bathed in nasal mucus that cover the surface of the tissue in the nose. A sticky layer of mucus and the cilia draws particles to the back of the throat, into the esophagus for swallowing. The cilia and mucus simultaneously add heat and humidity to the air. The resulting filtered and conditioned air travels through the larynx into the trachea.

The larynx, also called the voice box, is a funnel-shaped organ in the back of the throat that connects the inferior portion of the pharynx with the trachea. The larynx is formed by nine cartilages connected by muscles and ligaments. The hyoid bone, a horseshoe-shaped bone in the anterior midline of the neck, is not part of the trachea and does not articulate with any other bone. It provides attachment to the muscles of the floor of the mouth and the tongue above, the larynx below, and the epiglottis and pharynx behind. The primary functions of the larynx are to protect the trachea when swallowing, and to produce sound. The larynx is covered by the epiglottis during swallowing. The epiglottis is a lid or flap that covers the larynx to protect the trachea from inhaled food or liquid. The larynx also contains vocal cords separated by a triangular opening, called the glottis, through which air flows. The glottis narrows, controlling the flow of air, which causes the vocal cords to vibrate and create sound.

The trachea, or windpipe, is the cartilage-supported tube that connects the nose and mouth to the lungs. If the epiglottis fails to cover the larynx, and food or liquid enter the trachea, the body's natural defense is to

cough. Sensory receptors in the larynx detect foreign substances and the brain triggers the cough reflex to prevent choking. For boys only, the trachea takes on a unique shape during puberty: Specifically, the largest cartilage of the larynx (voice box), the thyroid cartilage, grows larger and thus sticks out at the bottom of the throat. This is referred to as the “Adam’s Apple.” Everyone’s larynx grows during puberty; however, the thyroid cartilage in boys tends to grow more than in girls. Although rare, some girls may have an Adam’s apple. The growth of the thyroid cartilage is what causes the change in a boy’s voice during puberty.

Respiratory System



Source: EHRlich/SCHROEDER. *Medical Terminology for Health Professions*, 6E. © 2009 Delmar Learning, a part of Cengage Learning, Inc. Reproduced by permission. www.cengage.com/permissions

Introduction

This chapter will review the cardiovascular system. Codes relevant to this system are found in several sections of the CPT® manual (specifically surgery, radiology, and medicine), and throughout the ICD-9-CM (primarily chapter 7) and HCPCS Level II manuals.

Objectives

- Master anatomical concepts necessary to understand the cardiovascular system
- Define key terms, and recognize common eponyms and acronyms
- Explain the most common pathologies that effect this system
- Understand cardiovascular procedures and surgeries, and where in CPT® to locate the relevant codes
- Introduce ICD-9-CM and HCPCS Level II codes and coding guidelines as they apply to this system
- Supply examples and review material to improve your application of the above concepts

Anatomy and Medical Terminology

The term cardiovascular means pertaining to the heart and the blood vessels. The cardiovascular system is comprised of the heart, arteries, and veins.

The Heart

The heart often is called the hardest working muscle in the human body. It sits between the lungs and behind the sternum (breastbone). The heart is a fist-sized, cone-shaped muscle (the myocardium) that beats nearly 115,000 times per day, at an average rate of 80 times a minute. The heart is divided into right and left sides by a muscular wall, the septum. A two-layered, protective membrane, the pericardium (literally “around the

heart”), surrounds the heart and the roots of the great vessels (aorta, pulmonary trunk, and superior and inferior vena cava).

The pericardium consists of two layers, one sac inside another, the parietal pericardium and the visceral pericardium. The parietal pericardium lies posteriorly and adjacent to the thoracic vertebrae and inferiorly to the diaphragm. It provides an efficient barrier to infection from surrounding structures. The visceral pericardium adheres to the heart and the first several centimeters of the pulmonary artery and aorta.

Pericardial fluid lubricates the heart’s surface and facilitates movement during the heart’s pumping action. The fluid, usually 10 to 30 ml in volume, can increase to 300 ml without impeding the heart’s pumping action. With certain cardiac conditions, up to one liter of fluid can be retained within the pericardial space.

There are three layers of heart muscle:

1. The epicardium covers the heart’s surface and extends to the great vessels.
2. The myocardium is the contracting muscle of the heart and consists of striated muscle fibers interlaced into bundles.
3. The innermost endocardium is composed of a thin layer of endothelium and a thin layer of connective tissue.

These layers line the inner chambers of the heart as well as the valves, chordae tendineae, and papillary muscles.

Chambers

The heart contains four chambers. The upper chambers are called the atria (singular = atrium), which are the “holding tanks,” and receive blood as it comes into the heart. The lower chambers are called the ventricles, and they pump blood out of the heart. The left ventricle is the most muscular chamber of the heart because

4. Which valves are the semilunar valves?

- A. Tricuspid and Aortic
- B. Pulmonary and Mitral
- C. Tricuspid and Mitral
- D. Pulmonary and Aortic

5. Where can codes relating to the Cardiovascular system be found in CPT?

- A. 30,000s
- B. 70,000s
- C. 90,000s
- D. all of the above

ICD-9-CM

Most diagnostic codes for the cardiovascular system can be found in ICD-9-CM chapter 7, Diseases of the Circulatory System (390–459). Common cardiovascular conditions fall into these categories:

- Arrhythmias/Conduction disorders
- Hypertension
- Arteriosclerosis
- Diseases of the Aorta and its branches
- Endocarditis
- Heart failure
- Pericarditis
- Peripheral artery disease
- Peripheral vascular disease
- Valvular disorders
- Myocardial infarction

Arrhythmias/Conduction Disorders

An arrhythmia (dysrhythmia) is any disorder of the heart rate or rhythm. Common types include: premature atrial contractions (PACs), premature ventricular contractions (PVCs), atrial fibrillation (AF), atrial flutter, paroxysmal supraventricular tachycardia (PSVT), ventricular tachycardia (V-tach), ventricular fibrillation (V-fib), and bradyarrhythmias.

Conduction is the progression of electrical impulses through the heart that cause the heart to beat. You can have a conduction disorder without having an arrhythmia, but some arrhythmias arise from conduction disorders. Common conduction disorders include Bundle Branch block, Heart block, and Long Q-T syndrome.

Most ICD-9-CM codes for arrhythmias and conduction disorder are found in the range 426–427. There are separate codes for postoperative arrhythmia (997.1), psychogenic arrhythmia (306.2), and vasovagal arrhythmia (780.2).

Hypertension

Hypertension (HTN), or high blood pressure, is a chronic medical condition in which the blood pressure in the arteries is elevated. It is classified as either primary (essential) or secondary. About 90-95 percent of cases are termed “primary hypertension,” which refers to high blood pressure for which no medical cause can be found. The remaining 5–10 percent of cases (secondary hypertension) are caused by other conditions that affect the kidneys, arteries, heart, or endocrine system.

There is a Hypertension Table in the alphabetic index for hypertension, and the Official ICD-9-CM guidelines give extensive direction on code assignment.

CPT®

Codes throughout the CPT® manual may report procedures and diagnostic tests of the heart. For example, a coronary artery bypass graft (CABG) is coded from the 30000 section of CPT®, ECGs are coded from the 90000 section, and the radiologic portion of an interventional procedure is coded from the 70000 section.

Surgery (33010–37799)

Heart and Pericardium

A pericardiocentesis (33010, 33011) involves drawing off collected fluid (via a specialized needle) that has built up between the double layered pericardial sacs. Too much fluid can impede the heartbeat and the effectiveness of the heart.

A tube pericardiostomy (33015) refers to an artificial opening made to insert a tube for drainage purposes for specimen collection or culture.

A pericardotomy (33020) refers to an incision made for a clot/foreign body removal. This procedure requires subxiphoid, sternal splitting, or a left anterior thoracotomy incision for pericardial biopsy, irrigation, drainage, or collection of cultures. They are not identified separately. For thoracoscopic removal of intrapericardial blood clot or foreign body, report code 32658.

Practical Coding Note

Make a note in the Pericardium section to see 32658 for thoracoscopic removal of intrapericardial blood clot or foreign body.

A pericardiectomy (33030, 33031) describes the removal of the fibrous sac (pericardium) that surrounds the heart. This procedure is performed due to adhesive pericarditis, constrictive pericarditis, or other diseases affecting the pericardium. The use of cardiopulmonary bypass significantly increases the risk to the patient. The surgeon will usually induce hypothermia, cardiac stand still, and the off loading of circulation to an artificial pump/oxygenator that requires the employment of a technician specially trained to run it. The blood is oxygenated and CO₂ gas is released in the pump/

oxygenator. Once this process is complete, the blood is returned to the aorta by the pump, which helps to mimic the beating of the heart by pumping the blood back into the body. Code selection is based on whether or not a cardiopulmonary bypass is used.

Practical Coding Note

Many cardiothoracic CPT® codes require the use of cardiopulmonary bypass, while others can be done with or without the use of bypass. The coder must pay close attention to the operative notes and choose the codes based on whether documentation supports the use of bypass. Highlight or underline “cardiopulmonary bypass” when used in the code description.

Cardiac tumors may be inside or outside the heart and require different levels of service. The part of the heart that is opened for removal of the tumor (33120, 33130) depends on the tumor’s location. After the heart is opened, the tumor is resected with a margin of normal heart tissue. Any problems created by this resection (damage to heart valves, holes in the walls, injury to coronary arteries) are repaired and are not coded separately. Cardiopulmonary bypass is only required if a significant portion of the heart or major vessel must be removed with the tumor, or to resect margins of normal tissue around the tumor.

Transmyocardial revascularization (TMR) is a surgical procedure to treat severe angina. The surgeon makes a thoracotomy incision (transthoracic) to expose the surface of the heart and locate a viable ischemic area. The laser is inserted and fired between heartbeats to make channels through the left ventricle that will enhance the flow of oxygen-carrying blood back to the severely damaged or blocked muscle.

The blood that fills the ventricle protects the surrounding heart tissue from injury by the laser. The procedure also stimulates the growth of new blood vessels within the heart muscle.

Pacemaker or Pacing Cardioverter-Defibrillator

A pacemaker or defibrillator system is made up of a pulse generator (battery and electronics) and one or

3. **A 5 French pigtail catheter was placed in the abdominal aorta and a run-off was performed following injection of 80 cc of contrast. Oblique DSA images of the iliac circulation were performed following 2 injections, each 15 cc. The catheter was not moved to another position within the aorta for the additional injections.**
 - A. 36200, 75630
 - B. 36215, 36215-59, 75630
 - C. 36215, 36215-59, 36200, 75630
 - D. 36200, 75716

4. **A catheter was advanced into the left and right renal, SMA (superficial mesenteric artery), and imaging was performed in all vessels.**
 - A. 36215, 36215-59, 36215-59, 75722-26-RT, 75722-26-LT, 75774
 - B. 36245, 36245-59, 75724-26
 - C. 36245, 36245-59, 36245-59, 75724-26, 75726-26
 - D. 36245, 36248 x 2, 75724-26, 75726-26

5. **A catheter is placed at the level of the renals for the abdominal angiography and then moved to the level of the bifurcation for pelvic angiography demonstrating stenosis in the left external iliac.**
 - A. 36245, 36245-59, 75630-26
 - B. 36245, 36245-59, 75710-26, 75625-26
 - C. 36245, 36200, 75710-26
 - D. 36200, 75710-26, 75625-26

Radiology

Radiology codes were discussed for interventional coding, above. We will now look at some other tests that fall under the Radiology section for Cardiology.

Heart (75557-75574)

This section contains codes for cardiac magnetic resonance imaging (MRI) and computed tomography (CT). Cardiac MRI differs from traditional MRI in its ability to provide a physiologic evaluation of cardiac function. Only one procedure from code range 75557-75563 may be reported per session. Only one add-on code for flow velocity (75565) may be reported per session. Cardiac MRI can be performed at rest and/or during pharmaco-

logic stress. Stress test codes (93015-93018) also may be reported, if appropriate.

Cardiac computed tomography (CT) and coronary compound tomographic angiography (CTA) are described by 75571-75574. Contrast enhanced cardiac CT and coronary CTA include any quantitative assessment when performed as part of the same encounter. Only one CT heart service may be reported per encounter.

Cardiovascular System (78414-78499)

This section has codes for SPECT, planar, PET, and blood pool imaging studies.

Introduction

The digestive system consists of the alimentary or digestive tract and its accessory organs. The digestive tract is a long, hollow, muscular tube beginning at the lips and ending at the anus. It includes the mouth, pharynx, esophagus, stomach, small intestines, and large intestines. The accessory organs include the salivary glands, liver, pancreas, and gallbladder.

The major function of the digestive system is to digest or break down foods that are taken into the body. The digestive process mechanically and chemically breaks down food so it can be absorbed into the body to nourish cells and provide energy.

The long, hollow organs of the digestive tract have smooth muscle fibers running in circular and longitudinal directions. These circular fibers contract and enable the food to move from one organ to the next. This action is named peristalsis.

Objectives

The objectives of this chapter are:

- Define and understand the key terms associated with the digestive tract and the procedures performed in this section
- Understand the anatomy associated with the procedures performed in this section
- Explain the organization and content of the CPT® Surgery/Digestive System subsections
- Learn to assign appropriately CPT® surgery codes from the digestive subsection

Anatomy and Medical Terminology

Lips/Mouth

The lips form the entrance to the oral cavity and the digestive tract. The oral cavity includes the mouth and its associated structures; the soft and hard palates, teeth, gums, tongue, and salivary glands. The mouth performs three main functions: digestion, breathing, and speech. The digestive process begins when food enters the mouth. The teeth and tongue break the food into small particles by mastication or chewing. The salivary glands secrete saliva and enzymes that aid in the digestion. The tongue functions to mix saliva with food and to keep the food pressed between the teeth for chewing before it pushes the food backward for swallowing.

There are three categories of teeth:

* **The Incisors**—These are the teeth in the front of the mouth. They are shaped like chisels and are useful in biting off large pieces of food. Each person has eight of these (four on the top, four on the bottom).

* **The Cuspids**—These are the pointy teeth immediately behind the incisors. Also called the canines, these teeth are used for grasping or tearing food. Each person has four of these (two on the top and two on the bottom).

* **The Molars**—These are flattened teeth used for grinding food. They are the furthest back in the mouth, and their number can vary among people.

thoracic approach, the diverticulum is excised and the esophageal mucosa is re-anastomosed.

Endoscopy 43200–43273

Endoscopic procedures are used to visualize the digestive organs, via the use of either a flexible fiber-optic tube or ridged instruments. Endoscopic instruments allow physicians to diagnosis and/or treat various conditions, such as ulcers, inflammation, tumors, infections, or bleeding. It is important to choose and report the appropriate code for each anatomic site examined.

Codes 43200–43232 describe esophagoscopy procedures that are the direct visualization of the esophagus that do not extend into the stomach. It is important to note that 43200, *esophagoscopy, rigid or flexible* is the parent code for this series. This means that the other codes in this series are indented in the CPT®; therefore, everything prior to the semicolon is inherent to the remaining codes in the series.

Practical Coding Note

Place a line down the left side of codes 43201–43232 with a highlighter to remind you they are indented codes.

Band ligation of esophageal varices (43205) describes the application of a tight band around an esophageal varix (a tortuous, dilated vein; a varicose vein in the esophagus) that cuts off circulation and effectively eliminates the varix.

Hot biopsy and bipolar cautery (43216) are two techniques used to remove small tumors, polyps, or other lesions. These removal techniques are not differentiated in the code description.

Hot Biopsy Forceps—Uses monopolar current, requiring a grounding pad placed somewhere on the patient. The use of “hot” forceps enables the provider to simultaneously excise a lesion and control bleeding and, if needed, preserve the specimen for histological examination.

Bipolar Cautery—Employs a tool with two tips and does not require the use of a grounding pad since the current runs from one tip to the other.

Electrocautery snare (43217) can also be used to remove small tumors, polyps or other lesions. A snare is a wire loop used to encircle rather than grasp tissue, as done with forceps. Usually monopolar current is used with snares, although bipolar snares are available.

Practical Coding Note

CPT® code 43228 is used when techniques other than hot biopsy, bipolar cautery, or electrocautery snares (eg, laser) are used for lesion treatment. Make a note of this next to codes 43216 & 43217.

If more than one tumor is removed by multiple techniques, which have distinct CPT® codes, each type of removal should be separately reported.

Example

Biopsy of one tumor, excision of a different tumor by hot biopsy and removal of a polyp by snare technique would require three separate codes:

- 43202 Esophagoscopy, rigid or flexible; with biopsy, single or multiple
- 43216 Esophagoscopy, rigid or flexible; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps or bipolar cautery.
- 43217 Esophagoscopy, rigid or flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique

A modifier 59 would need to be appended to show they were different sites.

With balloon dilation (43220) (less than 30 mm diameter), the endoscope is passed through to the esophagus, and while viewing the strictured interior, a tube with an inflatable balloon at its tip is passed through the endoscope and positioned at the narrowed section of the esophagus. The balloon is then inflated for a period of time to dilate the narrowed area. The balloon is then deflated and removed. Do not use this code if

Introduction

In this chapter, we will explore the anatomy and function of the kidneys, ureters, bladder, and urethra. We also will cover diseases and procedures for the male urinary system. Because urine must pass through the prostate and seminal vesicles when leaving the male body, there are significant diseases that can affect the male reproductive system. We will discuss few of these, as well.

Objectives

The objectives for this chapter include:

- Describe the anatomy of the urinary system
- Describe the anatomy and functions of the male reproductive system (the female reproductive system is covered elsewhere)
- Understand the structures and processes that form and eliminate urine
- Understand and learn where to locate diseases specific to the urinary system within ICD-9-CM
- Learn the components of the CPT® manual specific to the genitourinary system and male genital system
- Determine when and how to apply modifier
- Discover which HCPCS Level II codes are significant to the genitourinary system

Anatomy and Medical Terminology

The Urinary System

The urinary system removes a type of waste called urea from your blood. Urea is produced when foods are broken down in the body. It is carried in the bloodstream to the kidneys. The urinary system works with the lungs, skin, and intestines to keep the chemicals and water in your body balanced.

The urinary system of the human body consists of two kidneys, two ureters, one bladder, and one urethra. In ICD-9-CM and CPT® coding, terms such as “renal” and “nephro” usually are interchangeable. The definition of renal is “pertinent to the kidney,” whereas, the meaning of “nephro” is “kidney.”

Within the renal sinus of the kidney is the renal pelvis. The renal pelvis (“pyelo-”) is the expanded proximal end of the ureter (where the ureter attaches to the kidney). It receives urine through the major calyces. The primary function of the renal pelvis is to act as a funnel for urine flowing to the ureter. Urine passes through the ureters and flows into the bladder, where it is stored.

At the time of urination, the bladder muscles will tighten and squeeze urine from the bladder into the urethra. The urethra is the outlet for the urine to exit the body. The proximal opening of the urethra is called the bladder neck: In men, it is adjacent to the prostate gland. If the bladder neck does not open appropriately or completely during voiding, the bladder neck may become obstructed. This can be caused in men by an enlarged prostate. In women, vaginal or pelvic prolapse is the most common cause of bladder neck obstruction.

The kidneys are bean-shaped organs approximately the size of your fist. They are located near the middle of the back, just below the rib cage to the left and right of the spine. The kidneys remove urea from the blood through tiny filtering units called nephrons. Each nephron consists of a ball formed of small capillaries, called a glomerulus, and a small tube called a renal tubule. Urea, together with water and other waste substances, form urine as they pass through the nephrons and down the renal tubules of the kidney.

The ureters are muscular tubes that carry urine from the kidneys to the bladder. The ureters originate in the renal pelvis and end in the bladder. They are approximately 25–30 cm (10–12 inches) long and 3–4 mm in diameter. The muscles in the ureter walls constantly tighten and relax to force urine downward away from the kidneys. If

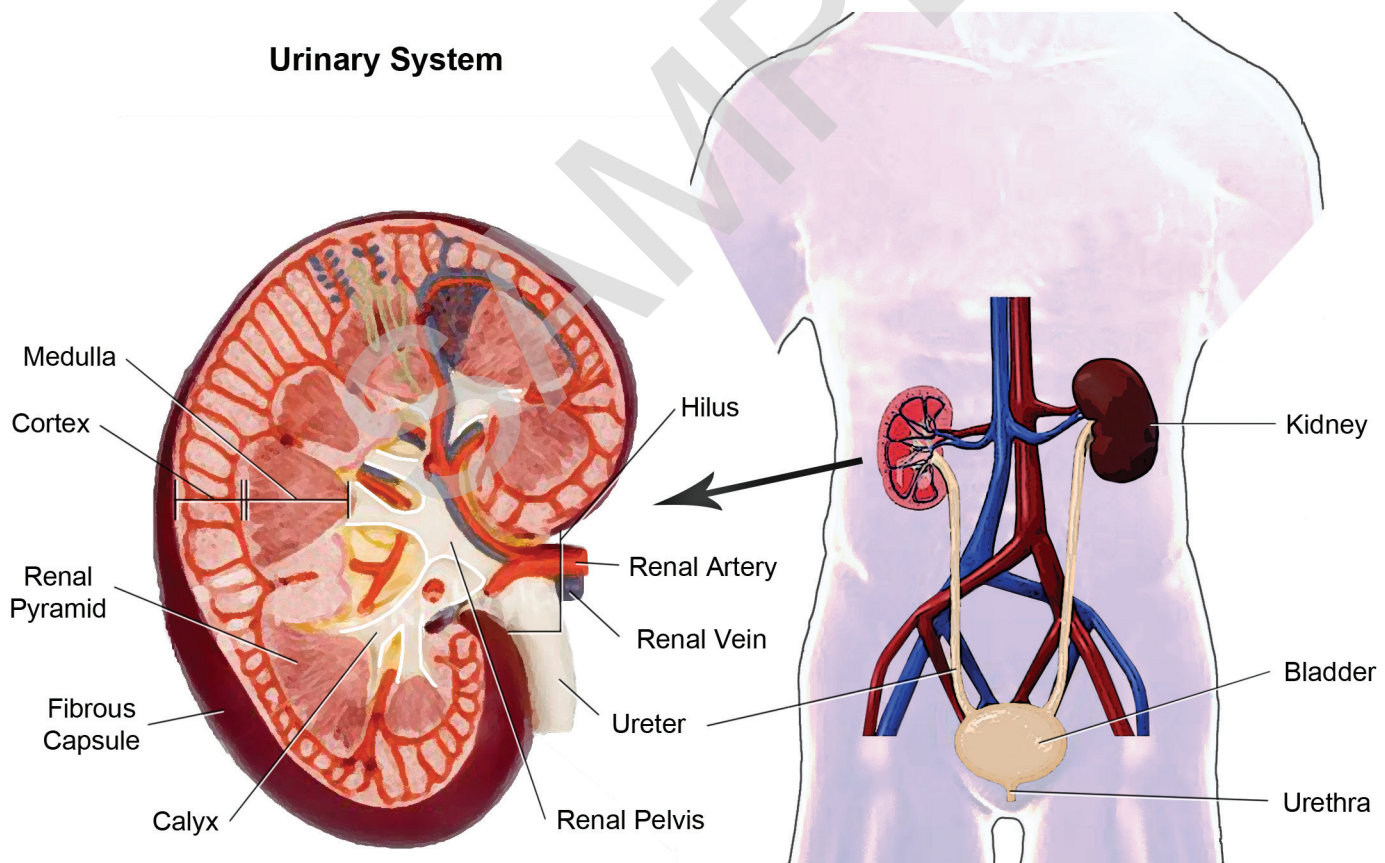
urine is allowed to stand still, or back up, a kidney infection (pyelonephritis) can develop.

The urinary bladder is a hollow, muscular, expandable organ that collects urine. It can be referred to as “vesical” or “cyst” in coding of procedures. The bladder sits on the pelvic floor and is held in place by ligaments attached to other organs and the pelvic bones. The bladder stores urine until nerves from the bladder send a message to the brain that the bladder is full and the urge to empty (void) intensifies. When you urinate, the brain signals the bladder muscles to tighten, squeezing urine out of the bladder. At the same time, the brain signals the sphincter muscles to relax. As these muscles relax, urine exits the bladder through the urethra.

The urethra is a tube that connects the urinary bladder to the outside of the body. In the male body, the urethra excretes fluid wastes and semen. It is shaped like an “S” to follow the line of the penis. The portion of the urethra that passes through the prostate gland is known as the prostatic urethra. The prostatic portion of the urethra passes along the neck of the urinary bladder (vesical or bladder neck) and through the prostate gland. This section of the urethra is designed to accept the drainage from the tiny ducts within the prostate and is equipped with two ejaculatory tubes. The female urethra is straight, approximately 4 cm long, and leads out of the body via the urethral orifice.

Urinary System with Renal Pelvis

Urinary System



Source: AAPC

Introduction

In this chapter we will discuss CPT®, ICD-9-CM, and HCPCS Level II coding for the female reproductive system. This chapter includes coding for labor, delivery, abortions, and infertility. We will discuss chapters 10 and 11 of ICD-9-CM, and the proper use of V codes for services related to the female reproductive system.

Objectives

1. Describe the structures associated with the female reproductive system
2. Use appropriate medical terminology to identify services and select codes
3. Apply the ICD-9 guidelines for assigning codes and the special guidelines for coding complications of pregnancy, childbirth and the puerperium
4. Select CPT® and HCPCS Level II codes to describe the services and procedures related to the female reproductive system
5. Apply CPT® and HCPCS Level II modifiers when appropriate

Anatomy

The central organ of the female reproductive system is the uterus. The uterus is considered in two primary components, the cervix uteri and the corpus uteri. The *cervix uteri*, or neck of the uterus, is the lower portion of the uterus that tapers to connect to the vagina. In its normal anatomic location it protrudes into the upper vaginal canal. The opening in the cervix is known as the *os* or external *os*. The body, or fundus, of the uterus is known as the *corpus uteri*. This is the part of the uterus where the fetus develops during a normal pregnancy.

The *fallopian tubes* are two tubes, one on either side of the uterus, leading from the bilateral ovaries into the uterus. They also are called oviducts, uterine tubes, and salpinges (*singular salpinx*). The distal ends of the fallopian tubes are called the infundibulum. The fimbriae, or fingers, that are near the ovaries, help to capture the ovum (eggs or oocytes) as they make their way into the tubes, and thereby to the uterus. The ovaries are the actual egg-producing reproductive organs. They also produce hormones related to the female reproductive cycles, and are therefore part of both the female reproductive and the endocrine systems. Together the fallopian tubes and ovaries are the uterine adnexa. Adnexa means appendages or adjunct parts.

The vagina is a tubular, muscular canal that leads from the uterus to the outside of the body. The anterior vagina surrounds part of the cervix, as described above. The distal vagina opens to the vulva. Occasionally the vagina also will contain a congenital partition, or vaginal septum. This septum may be either longitudinal, essentially creating a double vagina, or transverse. A transverse septum may block menstrual flow or, if incomplete, may be a cause of dyspareunia (pain during intercourse), or may obstruct delivery.

The vulva is the external genital organ of the female. It contains many structures, including the labia majora and minora, mon pubis, clitoris, and the vestibule or introitus of the vagina. The vagina introitus is also the location of the hymen, which is a fold of mucous membrane that surrounds or partially covers the external vaginal opening.

Several glands also are found in the vulva. The Bartholin's glands (also called the greater vestibular glands) are located slightly below and to either side of the vaginal introitus. The Skene's glands (also called the lesser vestibular glands, or periurethral glands) are located on the anterior wall of the vagina around the lower end of the urethra.

Codes for complications of pregnancy start with category 640 and continue through the rest of the chapter. There are several specific challenges related to coding in this part of chapter 11 and the first is the correct assignment of fifth digits to describe the episode of care. There are five possible fifth digits (0–4) for virtually all of the codes in this part of the chapter.

The use of the fifth digit in this chapter will tell the insurer when in the pregnancy the service was provided. Use this key to understand how and when to use each digit.

- 0—Use the fifth digit “0” when the coder does not know whether the patient was still pregnant, delivered during this episode of care, or during a previous episode of care. This rarely applies to professional services and, more often is used for poorly-documented services in facility billing.
- 1—Use the fifth digit “1” when the woman delivered during this episode of care, with a prior or new condition occurring with the delivery.
- 2—Use the digit “2” when the woman delivered during this episode of care and there was a postpartum problem, or an antenatal problem continued after delivery.
- 3—Use the digit “3” when the woman had not delivered by the end of the episode of care being described.
- 4—Use the digit “4” when the woman delivered during a previous episode of care and now has a postpartum problem

Each code in this chapter also has only specified fifth digits that can be used with it. They are shown in square brackets [] under the code itself. You may not assign a fifth digit that to that code unless it is in brackets under the code. For example, code 653.6 may use [0,1,3]. You may not assign assign 2 or 4 as a fifth digit with this code.

Code 650 is the exception to the rules above. Code 650 is only to be used for a normal delivery. Normal delivery is defined as requiring minimal or no assistance, with or without episiotomy, without fetal manipulation or instrumentation or spontaneous, cephalic, vaginal, full-term, single, live-born infant. It is always used with code V27.0 indicating a single live-born

outcome of delivery. It may never be used with any other code from chapter 11.

There are a number of V codes that describe the reason for the encounter or the outcome of delivery. Codes from V27.x describe the number and survival status of the baby after delivery. Codes V22.0 and V22.1 describe encounters to manage a normal pregnancy. Code V22.2 is used in the rare circumstances when a patient is pregnant and receives healthcare service unrelated to pregnancy. V23.x describes monitoring of a high-risk patient who has not developed a problem. There are also a number of V codes that describe encounters for birth control, normal well-woman encounters, and other situations where the patient encounters health care but has no problems.

Acronyms

BC	Birth Control
CA	Cancer
CIN	Cervical Intraepithelial Neoplasia
DNC	Dilation and Curettage (also D&C)
IND	Incision and Drainage (also I&D)
IVF	<i>In Vitro</i> Fertilization
LEEP	Loop Electrical Excision Procedure
NST	Non-Stress Test
PID	Pelvic Inflammatory Disease
TAH-BSO	Total Abdominal Hysterectomy—Bilateral Salpino-Oophorectomy
US	Ultrasound
VBAC	Vaginal Birth after Cesarean (delivery)
VIN	Vulvar Intraepitheleal Neoplasia

Introduction

This chapter will discuss CPT®, ICD-9-CM, and HCPCS Level II coding for the endocrine and nervous systems. The majority of CPT® codes relevant to these systems are found within the 60000–64999 range, with additional codes to be found in the Medicine section (90000-series). Procedures may range from major or minor surgery, to diagnostic and therapeutic injection, to electro-diagnostic testing (such as electromyography or nerve conduction studies).

Within ICD-9-CM, codes for the endocrine system are found primarily in chapter 3, “Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders (240–279).” Codes specific to the Nervous system may be found in chapter 6, “Diseases of the Nervous System and Sense Organs (320–389).” Additional relevant codes (eg, for neoplasm) are located throughout ICD-9-CM.

Objectives

- Master anatomical concepts important to understand the endocrine and nervous systems
- Review terminology relevant to these systems
- Provide practical advice to overcome the most common CPT® coding dilemmas involving these systems
- Alert you to important documentation issues and possible shortcomings, as they apply to procedures of the endocrine and nervous systems
- Discuss application of most-frequently used CPT® modifiers
- Introduce ICD-9-CM and HCPCS codes and coding guidelines as they apply to these systems
- Supply hands-on examples and review material to improve your mastery of the above concepts

Anatomy

The Endocrine System

As discussed in chapter 2, the endocrine system is comprised of glands, located throughout the body, that produce various hormones. The endocrine glands are ductless glands that secrete hormones directly into the blood circulatory system. Hormones regulate many body functions, including growth and development, mood, metabolism, and tissue function.

The thyroid is located in the neck, just below the thyroid cartilage, or “Adam’s Apple.” It controls how quickly the body uses energy, makes proteins, and determines how sensitive the body will be to other hormones. The butterfly-shaped gland is composed of two wings, or lobes, connected by an isthmus. Surgeons may remove all or a portion of the thyroid (for instance, due to neoplasm). Lobectomy describes excision of all (total) or a portion (partial) of one lobe of the thyroid. Isthmusectomy describes excision of the isthmus (the “body of the butterfly”).

There are four parathyroid glands. They usually are found on the back of the thyroid. These glands maintain the body’s calcium level for proper functioning of the nervous and muscular systems. Parathyroidectomy describes excision of the parathyroid gland(s).

The thymus is located in the chest, behind the sternum and in front of the heart. The thymus produces T-lymphocytes, or T cells, and produces and secretes hormones to control immune function. The gland is composed of two identical lobes, and usually shrinks over the course of a lifetime. Thymectomy (partial or total) describes excision of the thymus. This may be achieved by a number of surgical approaches, including transcervical (via the neck), transthoracic (via the chest), or sternal split (also via the chest).

The adrenal glands sit directly atop the kidneys, one per side (“adrenal” means “near the kidneys”). Each gland is

Because the lumbar and sacral plexus are interconnected, they sometimes are called the lumbosacral plexus.

Major Nerves of the Peripheral Nervous System

Femoral Nerve—Sensory and motor nerve that supplies the front of the thigh and part of the lower leg.

Common Fibular Nerve (common peroneal)—Sensory and motor nerve that supplies the knee and superior tibiofibular joints and tibialis anterior muscle, and divides into superficial and deep fibular (peroneal) nerves; a branch of the sciatic nerve that supplies movement and sensation to the lower leg, foot, and toes. .

Intercostal Nerves—The upper thoracic nerves that innervate primarily the chest and upper abdomen; the only nerves that do not originate from a plexus.

Median Nerve—Innervates most flexor muscles of the forearm and provides sensation for the thumb, index, middle fingers, and a portion of the ring finger; the only nerve that passes through the carpal tunnel.

Musculocutaneous Nerve—Sensory and motor nerve of the coracobrachialis, biceps brachii, and the greater part of the brachialis (the bicep and side of forearm); arises from the brachial plexus.

Radial Nerve—Innervates the triceps brachii muscle of the arm and all 12 muscles in the posterior osteofascial compartment of the forearm.

Saphenous Nerve—Sensory nerve of the knee joint, subsartorial, and patellar plexuses, and the skin on medial side of leg and foot.

Sciatic Nerve—The largest nerve of the body, derived from spinal nerves L4 through S3, that runs through the buttock and down the lower limb, supplies the skin of the leg and the muscles of the back of the thigh. It divides just above the knee into the tibial and common fibular (common peroneal) nerves.

Subcostal Nerves—Sensory and motor nerves of the skin of lower abdomen and lateral side of gluteal region, and parts of abdominal transverse, oblique, and rectus muscles.

Tibial Nerve—Sensory and motor nerve that supplies the muscles and skin of the knee, calf and sole of the foot, and the toes; a branch of the sciatic nerve

Ulnar Nerve—Provides sensation for the little finger and a portion of the ring finger, and innervates some muscles of the hand and forearm.

The Spinal Cord (and Spine)

The spinal cord is a bundle of nerves that extends from the base of the brain downward, to the space (conus medullaris) between the first and second lumbar vertebrae. The spinal cord lies within the vertebral column, which protects it. Below the conus medullaris, the spinal nerves continue as the cauda equine.

The spinal cord has three main functions:

1. To serve as a conduit for motor information that travels down the spinal cord (to the muscles)
2. To serve as a conduit for sensory information that travels up the spinal cord (to the brain)
3. To serve as a center for coordinating a number of reflexes

The spinal cord nerve segments are grouped by region, as follows:

- Eight cervical segments form 8 pairs of cervical nerves
- Twelve thoracic segments form 12 pairs of thoracic nerves
- Five lumbar segments form five pairs of lumbar nerves
- Five sacral segments form five pairs of sacral nerves (some anatomy texts consider this to be a single segment)
- Three coccygeal segments join, forming one pair of coccygeal nerves

The spinal nerves for each segment exit at the level of the corresponding vertebra. As is true of spinal surgeries in the musculoskeletal region of CPT® (22010–22899), you may need to know the region of the spine (cervical, thoracic, lumbar, sacral) in which a procedure occurs to code the procedure correctly.

Procedures of the spine and spinal column (CPT® 62263–63746) also may differentiate among vertebral segments and vertebral interspaces.

- A vertebral segment describes the basic constituent part into which the spine may be divided. It represents a single complete vertebral bone with its associated articular processes and laminae

Introduction

The eye and ear are both part of the nervous system, but both CPT® and ICD-9-CM treat them separately from the rest of the nervous system codes. That's because the eye and the auditory systems are very specialized anatomically, and as sense organs vital to our overall well-being, warrant separate consideration.

To understand coding of disorders or procedures for the eye or the ear, it helps to have an understanding of the interdependencies of the components of sight and sound. We will take a good look at how these structures work together to serve our senses, and then how surgeries can support sight and hearing.

Objectives

- Understand the components of the eye and of the ear
- Define key terms
- Understand the most common pathologies affecting these sense organs
- Understand eye surgeries and ear surgeries and how they relate to pathologies
- Recognize common eponyms and acronyms for these specialties
- Identify when other sections of CPT® or ICD-9-CM should be accessed
- Know when HCPCS Level II codes or modifiers are appropriate

Anatomy and Medical Terminology

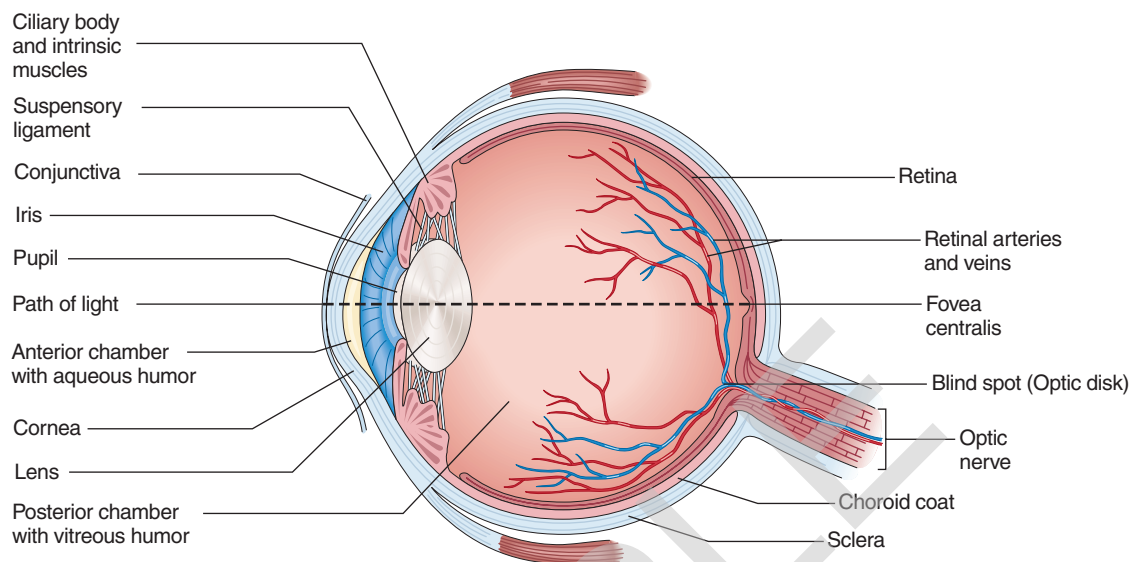
The eye and ear are both complex organs that have unique structures and nomenclature. The most important concept to understand regarding the eye is refraction. The ear has two key functions that must be understood: conduction and balance.

The Eye

Vision is all about light. Light enters the eye; sensors there read the image and transmit information to the brain. On its way to those sensors, the light travels through several transparent layers of the eye, and these layers are responsible for refraction of the light. In refraction, the light is focused and directed. If the light is refracted imperfectly, vision blurs. People who wear glasses or contacts are adding a corrective layer of refraction to their eyes to improve their sight. Surgery can be performed to correct the error in refraction, as well.

The eyeball is just that: a ball. It is composed of a tough membrane called sclera. Sclera is the white outer skin of the eye, and is covered with a thin protective layer of conjunctiva. The sclera is tough so that the contents of the eye are protected, and also so that the shape of the eye remains consistent. The shape of the eyeball affects refraction. If the eyeball is too oblong, the patient will be near-sighted, and refraction will cause blurring of far away objects. In far-sightedness, the eyeball is foreshortened, and close-up vision is impaired.

The Eye



Source: RIZZO. *Fundamentals of Anatomy and Physiology*, 3E. © 2010 Delmar Learning, a part of Cengage Learning, Inc. Reproduced by permission. www.cengage.com/permissions

Fluids within the eyeball help maintain its consistent shape. Any reduction in fluid within the eye will affect the shape of the eye, just like letting air out of a beach ball, and will affect refraction. Severe dehydration and numerous medical conditions can affect the shape of the eye, and therefore, cause blurry vision.

Each eye has six muscles that work in tandem to direct the gaze up and down and from side to side as we focus on an object. If we follow the path of light in the eye, it first enters through the cornea, which is the “bay window” of the eye. The cornea has five layers, and they act to refract the light entering the eye. The layers are important, because sometimes corneal defects will be managed by removing one or two layers, rather than full-thickness cornea. This is done to preserve the fluid balance of the eye and prevent leaks through full-thickness incisions. The cornea meets the sclera in a ring called the limbus, also known as the sclerocorneal junction. Often, physicians will reference the limbus when describing the site of incision in eye surgery. Behind the cornea is the anterior segment of the eye, which is filled with a clear, salty fluid called aqueous humor. The aqueous humor functions as another source for refraction, and also provides stability to the corneal walls.

Light from the aqueous humor next enters the crystalline lens, a convex disc suspended on threads just behind the iris. We know the iris as our source of eye color, but this colorful tissue is actually a muscle that expands and contracts to regulate the amount of light entering the posterior chamber of the eye through the pupil. If the light is too bright, the iris expands so that the size of the pupil shrinks. If there is too little light, the iris contracts to enlarge the pupil and allow more light into the eye. The threads holding the lens and the ciliary body to which they are connected automatically tug at the lens to change its shape to help focus on items near or far. This refraction function gets slower and less effective with age, which explains why so many older adults find themselves getting prescriptions for reading glasses.

After the light has been bent by the crystalline lens, it enters the vitreous humor, a gel-like mass that fills the large posterior chamber of the eye. The vitreous humor presses against the inner layer of the eye, maintaining the eyeball’s shape and keeping the blood-rich choroid layer in contact with the retina. The light is placed upon the retina’s rods and cones like a projected image at a movie theater, and these images are transmitted via the optic nerve to the brain.

Labyrinthectomy

In individuals with complete or near complete hearing loss in one ear due to Ménière's, a surgical procedure termed a labyrinthectomy (69905–69910) may be performed using the same approach through the mastoid bone. The inner labyrinth is exposed and the semicircular canals are drilled away, exposing the nerve of balance that is removed.

A vestibular nerve section is performed when a patient is diagnosed with acute mastoiditis accompanied with other complications or vestibular neuronitis (a benign disorder characterized by sudden onset of severe vertigo that can last seven to 10 days). In a vestibular nerve section, using a translabyrinth approach, the surgeon drills out the mastoid cavity, removes the semicircular canals, and then removes the bone over the internal auditory canal. The dura is opened and the vestibular nerve is cut. The dura is closed and the mastoid cavity is packed. Code 69915 reports a vestibular nerve section by translabyrinth approach.

A cochlear implant is an electronic device that is implanted under the skin and is used to treat sensory deafness. Electrodes in the middle ear assist in the creation of sound sensation for a patient who has this device implanted. The first cochlear implant procedure was performed in 1978 in Australia. Code 69930 reports cochlear device implantation, with or without a mastoidectomy.

Temporal Bone, Middle Fossa Approach

Subsection describing the middle fossa approach to the temporal bone includes primary procedures and an unlisted code for other procedures. The temporal bones form a part of the base of the skull. They are among the hardest of all bones, and enclose the organs of the hearing and balance systems. The middle fossa approach provides surgical access to lesions of the geniculate ganglion and the labyrinthine portion of the facial nerve as well as to the internal acoustic canal, and helps preserve cochlear function.

Bell's palsy is a unilateral facial paralysis of sudden onset and unknown cause. A patient diagnosed with Bell's palsy shows symptoms of weakness to an entire half of the face. The extent of nerve damage determines patient outcome. A total nerve decompression and repair are

common surgical procedures to repair the facial nerve damage. Several approaches are used via temporal bone, mastoid approach, or through the external auditory canal. If the nerve has been transected because of trauma, it can be repaired with sutures.

Code 69955 reports a total facial nerve decompression and/or repair. This code includes a graft when a graft is included as part of the surgical procedure. Code 69970 is reported when the surgeon, through a middle cranial fossa approach, removes a temporal bone tumor.

The Medicine Section—Special Otorhinolaryngologic Services (92502–92700)

CPT® codes described in the Special Otorhinolaryngologic subsection of CPT® describe services that may be reported in addition to comprehensive E/M services. Many diagnostic and treatment procedures involving the ear, nose, and throat are included in E/M service and should not be reported separately or E/M services.

Aural rehabilitation is auditory training or therapy provided by the physician or his/her clinically trained staff member. It includes speech, language, and/or hearing loss, and physical and mental development. Once an assessment is made, the physician provides the patient with a plan that may involve speech therapy and/or hearing aids, etc.

Code 92512 reports nasal function studies (eg, rhinomanometry). This study is used to evaluate the normal and abnormal function of the nose. The rhinomanometry measures the flow and pressure of air through the nose to assess the degree of obstruction, if any. This test can be performed by anterior or posterior measurements.

Vestibular Function Tests (92531–92548)

Vestibular function tests evaluate conditions such as vertigo (92531–92534). Vertigo is an abnormal sensation of rotary movement associated with difficulty in balance, gait, and navigation of the environment. Lesions (disturbances in the inner ear), in the 8th nerve or vestibular nuclei and their pathways in the brainstem

Introduction

This chapter will include information necessary to understand correct anesthesia coding. The anesthesia codes take up only a few pages in CPT®, but coding guidelines for anesthesia services are unique. Note also that anesthesia providers are not limited strictly to reporting anesthesia codes 00100–01999. The objectives for this chapter are:

- Understand anesthesia coding guidelines
- Define key terms related to anesthesia
- Understand how anatomy applies to anesthesia coding
- Recognize acronyms for anesthesia coding
- Identify when other services may be billed in conjunction with anesthesia
- Distinguish between anesthesia services and moderate sedation
- Know which HCPCS Level II modifiers are appropriate

Anatomy and Medical Terminology

This section will concentrate on terminology related to anesthesia and the difficult areas of anesthesia code selection. After learning the basic concepts for assigning an anesthesia code anatomically and by description, we will add more difficult concepts in the CPT® section.

Anesthesia codes are grouped anatomically, beginning with the head. Because anesthesia codes are reported as related to the surgical service provided, coders must be knowledgeable in anatomical terminology from many different specialties.

Selecting an anesthesia code follows the same basic steps as assigning procedure codes for other specialties. Coders either will use the Anesthesia index in the back of the CPT® to locate the correct anatomic area, or turn

to the blue “Anes 00100” tabbed index and look under the appropriate anatomic heading.

Example

To look up the code for a thyroid biopsy, you can look in the Index or in the Tabular section of the CPT® manual.

1. In the Index
 - Anesthesia

Biopsy	00100
Liver	00702

The code we are looking for is not found under anesthesia, biopsy. If the anesthesia code is not found under the procedure, next you look for the anatomic structure.

- Anesthesia

Thyroid	00320–00322
---------	-------------

Refer to the code range in the tabular section to determine which code is correct.

2. In the Tabular

After reviewing 00320–00322 we find that we need to determine how the biopsy is obtained. If a needle biopsy is performed, report 00322. If another method was used, report 00320.

The following sections show the break down of anatomic anesthesia code assignments:

Head

00100 through 00222

Neck

00300 through 00352

Thorax (Chest Wall and Shoulder Girdle)

00400 through 00474

Intrathoracic

00500 through 00580

Spine and Spinal Cord

00600 through 00670

Upper Abdomen

00700 through 00797

Lower Abdomen

00800 through 00882

Perineum

00902 through 00952

Pelvis (Except Hip)

01112 through 01190

Upper Leg (Except Knee)

01200 through 01274

Knee and Popliteal Area

01320 through 01444

Lower Leg (Below Knee Includes Ankle and Foot)

01462 through 01522

Shoulder and Axilla

01610 through 01682

Upper Arm and Elbow

01710 through 01782

Forearm, Wrist, and Hand

01810 through 01860

Radiological Procedures

01916 through 01936

Burn Excisions or Debridement

01951 through + 01953

Obstetric

01958 through + 01969

Other Procedures

01990 through 01999

As with any other specialty, care must be taken to review the exact wording of each code—including any pertinent comments and exclusions, for example, “Pelvis (Except Hip).” Some exclusions must be taken literally; for instance, the hip codes are found under the “Upper Leg” section. Others exclusions may be taken more liberally. As an example, 00103 describes reconstructive procedures of the eyelid and gives examples (eg, blepharoplasty, ptosis surgery) of reconstructive surgery; however, this code may be assigned even if the procedure is not specified in the code descriptor.

Pay close attention to anesthesia codes that may not be reported together, or comments that send coders to another section. Parenthetical instructions will give you guidance for these circumstances.

Example

Parenthetical instruction for codes not reported together:

00834 *Anesthesia for hernia repairs in the lower abdomen not otherwise specified, younger than 1 year of age* includes the descriptor “younger than 1 year of age.” It is not appropriate to report code +99100 *Anesthesia for patient of extreme age, younger than 1 year and older than 70 (List separately in addition to code for primary anesthesia procedure)*, which is an age related code, in addition to 00834.

Parenthetical instruction referring to another section:

00796 *Anesthesia for intraperitoneal procedures in upper abdomen including laparoscopy; liver transplant (recipient)*. The parenthetical instruction states “(For harvesting of liver, use 01990).” Although the liver is located in the upper abdomen, the harvesting of liver is reported with code 01990, which is listed under “Other procedures” as *Physiological support for harvesting of an organ from a brain-dead patient*.

Parenthetical reminders and/or comments are located under each related code.

Practical Coding Note

Highlight or underline all references to age within the description of the anesthesia code:

00834 Anesthesia for hernia repairs in the lower abdomen not otherwise specified, **younger than 1 year of age**.

The integumentary (skin) system is generalized under either 00300 or 00400, depending on the anatomic location. Code 00300 includes muscles and nerves of the head and neck. However, other nerve and muscle codes may be found anatomically, as with the knee (01320 *Anesthesia for all procedures on nerves, muscles, tendons, fascia, and bursae of knee and/or popliteal area*) or wrist (01810 *Anesthesia for all procedures on nerves, muscles, tendons, fascia, and bursae of forearm, wrist, and hand*).

Introduction

Radiology is a branch of medicine that uses radiation—including ionizing radiation, radionuclides, nuclear magnetic resonance, and ultrasound—to diagnose and treat disease. Using radiography (X-rays), physicians may visualize and identify internal structures, and thereby also navigate within the body. X-ray technology includes a variety of advanced applications, such as computerized axial tomography (CAT or CT scanning), magnetic resonance imaging (MRI), ultrasound technology, nuclear medicine, radiation oncology, and positron emission tomography (PET).

Objectives

- Understand anatomical planes, anatomical directions, and positioning in radiology
- Review key terms associated with radiology
- Understand the use and coding of contrast material
- Differentiate between the different types of imaging and films
- Gain the knowledge of when to include additional CPT® codes from other sections
- Understand the importance of parenthetical instructions
- Distinguish between the 26 and TC modifiers and when to use them.

Anatomy and Medical Terminology

To obtain effective images, the radiologist or the radiology technician will need to place the patient in the correct positioning, and then adjust the equipment to the correct angle, height, and settings to take the image. Here, we will discuss the planes and positioning, and the projection.

Planes are ways in which the body can be divided. The most common planes are the frontal (coronal) plane that

cuts the body into front (anterior) and back (posterior) halves, the sagittal plane that cuts the body into right and left portions, and the transverse (axial) (horizontal) plane that cuts the body into upper (superior) and lower (inferior) halves. The midsagittal cuts the body into equal portions of right and left.

Example:

No visualized displaced rib fractures. There are multi-level degenerative changes of the spine. No evidence of acute fracture of the lower thoracic or lumbar spine on axial, sagittal, or coronal images. Fat filled left inguinal canal is noted.

In this CT, the physician used different plane images to verify the absence of a fracture of the lower thoracic or lumbar spine.

To know what is being viewed, you will need to understand directional and positional terms. Directional terms were reviewed in the anatomy chapter. Some main positional terms include:

Anatomic Position—Erect, facing forward, hands side with thumbs pointed out. The feet are together or slightly apart.

Supine Position—Lying down on the back with the face up. This position is also known as dorsal recumbent (lying down).

Prone Position—Lying face down on the front of the body. This position is also known as ventral recumbent.

Lateral Position—Position in which the side of the subject is next to the film. This can be performed as erect lateral (standing side) or lateral decubitus (lying down side).

Oblique Position—Slanted position where the patient is lying at an angle that is neither prone nor supine. In

used (X-ray, CT, MRI), the number of views, the type of views taken, and whether contrast material was used.

To identify the location, you will sometimes have to break apart a word into word parts. Consider “myelography” as an example: Myel/o is the root word meaning spinal cord and –graphy means the act of recording data. Therefore, myelography is recording data on the spinal cord. A myelography can be performed on different sections of the spinal cord and is coded according to the section studied. For example, a Myelography of the cervical region is coded with CPT® code 72240. You will notice the Myelography code is a supervision and interpretation code. The coder therefore should check if additional services need to be coded from other sections of the CPT® coding manual. Using our example of the cervical region, a coder would need to review the parenthetical instructions under CPT® code 72240, which state, “For complete cervical myelography, see 61055, 62284, 72240.”

When the anatomical location has been identified, codes for radiologic examination by X-ray often are selected based on the number of views. The number of views is not synonymous with the number of films used. A radiology technician may be required to shoot several films of the same view. The language used in CPT® refers to the number of views, not the number of films.

CPT® Example:

73560 *Radiologic examination, knee; 1 or 2 views*
 73562 *3 views*
 73564 *complete, 4 or more views*

Sometimes, the code descriptor will state a minimum number of views. When this terminology is used, the code will include any number of views in excess of the number provided in the description. For example, the description for CPT® code 73610 is *Radiologic examination, ankle; complete, minimum of 3 views*. Whether three, four, or more views are taken, 73610 would be appropriate.

For some radiologic examinations, the **type** of view taken, instead of the number of views, will be the determining factor for code selection. When this is the case, if

the physician only documents the number of views, there will be insufficient documentation for code selection.

CPT® Example:

74000 *Radiologic examination, abdomen, single anteroposterior view*
 74010 *anteroposterior and additional oblique and cone views*
 74020 *complete, including decubitus and/or erect views*

Practical Coding Note

Radiology codes by anatomical location are grouped together based on the type of imaging used (X-Ray, MRI, CT, etc). Within your CPT® coding manual, bracket the codes for each type of imaging and label the bracket as that type of imaging. After bracketing the codes, go through and underline the differences in each of the similar codes. This will aid in quick determination of the correct code during the certification exam. Upon finding the appropriate code, read the guidelines for that subsection of CPT®, along with any parenthetical notes listed below the code.

Acronyms

AP Anteroposterior
CT Computed tomography
CTA Computed tomography angiography
KUB Kidneys, ureter, bladder
LL Left lateral
MRA Magnetic resonance angiography
MRI Magnetic resonance imaging
PA Posteroanterior
RL Right lateral
S&I Supervision and interpretation
TMJ Temporomandibular joint

Introduction

In this chapter we will discuss CPT®, ICD-9-CM, and HCPCS Level II codes related to pathology and laboratory services. These services apply to all parts of the body and nearly all disease processes, and often are defined by the process used to perform the service, or by the substance analyzed (the analyte). CPT® codes will be found primarily in the Pathology and Laboratory chapter. Most (not all) codes will have both a professional and a technical component (discussed below). Because ICD-9-CM codes may come from nearly any chapter, we will focus on codes that are most specific to testing, and will cover some of the rules for assigning codes, rather than try to provide a comprehensive overview of codes that might be appropriate to this chapter. There are a small number of HCPCS Level II codes that are used for specific services; we will address these, also.

Objectives

The objectives for this chapter include:

- Define the terms and concepts specific to pathology and laboratory coding
- Apply the ICD-9-CM Guidelines for assigning codes for diagnostic services, and identify specific codes helpful in describing the medical necessity and outcomes of specific lab tests
- Select CPT® and HCPCS Level II codes to describe the services and procedures for Pathology and Laboratory services
- Apply CPT® and HCPCS Level II modifiers, when appropriate

Terminology

Services related to Pathology and Laboratory have their own terminology built on the same root words, prefixes, and suffixes that have been discussed in other chapters, with a few terms unique to these diagnostic services.

Pathology is the study of diseased tissue and cells (path = disease, -logy = study of). Pathology services include necropsies (autopsies), which are examinations of dead bodies to determine the cause(s) of death. Cytopathology is the study and diagnosis of diseases on a cellular level (cyto = cell). Cytogenetics goes one step further to study the genes within the cells, to determine whether disease has inherited components, and to identify the specific genetic components of certain disease processes.

Laboratory, in this context, refers to tests that are performed primarily in a medical laboratory (also called a clinical laboratory). Tests of clinical specimens provide information for the diagnosis, treatment, and prevention of disease.

Molecular diagnostics is the measurement of DNA (Deoxyribonucleic acid), RNA (Ribonucleic acid), proteins, or metabolites to detect genotypes, mutations, or biochemical changes. Hematology is the study of the components and behavior of blood (hemat = blood). Immunology is the study of the immune system and its components and function. Microbiology (micro = small, bio = life) includes four subspecialties: bacteriology (study of bacteria), mycology (study of fungi), parasitology (study of parasites), and virology (study of viruses).

Many Pathology and Laboratory CPT® codes (80047–80076) describe a panel of tests. When a panel code is used, each test listed in the panel description must be performed. Do not report two or more panel codes that include the same tests. For example, 80047 would not be reported with 80053 because they both include a number of the same tests. Separately report tests that are not included in the panel.

Tests may be identified as quantitative or qualitative. Qualitative testing determines the presence or absence of a drug only. Quantitative testing identifies not only the presence of a drug, but the exact amount present (quantitative shares the same root word as quantity). For example, a patient is brought to the ED after having

1. As with surgical pathology, the ordering physician must always be documented as part of the report.

2. Although not always recorded as part of the report it is helpful to know what type of study was requested. This heading also tells us that the specimen was a Pap smear and that it was cervical rather than vaginal.

3. The date collected is the date of service.

4. Clinical data will be helpful in coding ICD-9-CM for negative results.

5. Choosing a code includes know how the screening was performed. That information is included here.

6. This is the physician's interpretation. It is the Bethesda reporting system.

Case 2

1. **Ordering Physician:** Annette Brown, MD

2. **Cytology Report,** Screening Cervical Pap Smear

3. **Collected:** 1/30/20xx **Received:** 2/3/20xx

Patient History:

LMP: 1/24/09

4. **Additional Information:** Kidney transplant

Specimen Source:

A) Endo/ecto cervical

5. **Cytologic Impression, Manual screening with physician supervision:**

6. **Negative for intraepithelial lesions or malignancy**

Sampling Adequacy: Endocervical cells present.

Comments: Menstrual sample.

What are the CPT® and ICD-9-CM codes reported?

CPT® code: 88164

ICD-9-CM codes: V76.2, V42.0

CPT® code: The procedure is a cervical pap smear. Look in the Index for Pap Smears and you are directed to several ranges of codes. Since we know this was reported using the Bethesda system, you can look in the Index under Bethesda System and it is narrowed down to codes 88164-88167. Manual screening with physician supervision is reported with 88164.

ICD-9-CM codes: A screening pap smears are performed to diagnosis cervical cancer. To find the diagnosis, look in the Index under screening, malignant neoplasm, cervix and you are directed to V76.2. The patient has also had a kidney transplant. Look in the Index under transplantation, kidney and you are directed to V42.0. Verification of the codes in the Tabular List confirm code selection.

Introduction

Evaluation and management (E/M) services are placed prominently at the forefront of the CPT® manual, signaling the importance of these codes. For many providers, E/M services represent the bulk of codes reported. For each E/M service, code selection is based on location, physician work, and the extent of medical decision making demonstrated during the visit. E/M codes are reported by physicians and physician extenders of all medical specialties.

Objectives

- Define E/M
- Differentiate between a new patient and an established patient
- Identify service location(s) and type(s)
- Understand the requirements for the different levels of service
- Learn how properly to “level” an E/M service
- Abstract a provider’s note to arrive at the levels of service

Anatomy and Medical Terminology

Evaluation and management is not specific to one medical specialty, nor is it specific to one body system or anatomical area. To code E/M services appropriately, you will need to understand terms and anatomy related to the entire body.

During each visit, a physician uses a variety of methods to evaluate a patient. The physician observes the patient during the encounter and documents mannerisms and behavior. The skin and/or symmetry of the body are inspected.

After inspection and observation (or, visual evaluation), a physician may explore a body system further using palpation, auscultation, and/ percussion. Palpation refers

to examination of the body by touch. Body parts are palpated to look for organ size or condition (eg, abdominal masses), or for tenderness (eg, there is no tenderness to palpation). Auscultation is listening to body sounds. A stethoscope can be used to listen to the heart and lungs for sounds. Percussion is creating sounds from tapping on body areas to examine body organs and body cavities. The vibrations of the sounds help identify abnormalities. Lungs sound hollow on percussion.

As we discuss the physical exam component of an E/M code later in this chapter, we will introduce terminology used for each body area examined.

Medical Abbreviation	
BP	Blood pressure
CC	Chief complaint
HEENT	Head, eyes, ears, nose, throat
h/o	History of
HPI	History of present illness
Hx	History
NAD	No apparent distress
NKDA	No known drug allergies
PE	Physical examination
PERLA	Pupils equal and reactive to light and accommodation.
PMH	Past medical history
pt	Patient
R/O	Rule out
ROS	Review of systems
WNL	Within normal limits

- 1. Chief complaint.
- 2. Location: eyes and nasal.
- 3. Associated Signs & Symptoms: Congestion.
- 4. Duration: 2 days ago.
- 5. Context: working in garden.
- 6. Modifying factors: Decongestant.
- 7. Patient status is established.
- 8. ROS: Eyes.
- 9. ROS: Nose.
- 10. ROS: Cardiology.
- 11. ROS: Respiratory.
- 12. Personal History.
- 13. Social History.

Documentation Dissection: History

- 1. **CC:** sneezing, watery eyes
- 2. **History:** 4-year-old female presents today sneezing, watery eyes and nasal congestion.
- 3.
- 4. Symptoms started two days ago after spending all day working with her mom in the garden.
- 5.
- 6. Patient's eyes are not watering as much since she started taking a prescription decongestant
- 7. issued at previous visit, but only has two dosages left.
- 8. **ROS:** Eyes—Watery
- 9. ENT—Nasal congestion, sneezing
- 10. Cardio—Denies chest pain
- 11. Respiratory—Denies shortness of breath, wheezing
- 12. **Personal History:** Multiple sinus infections over last two years
- 13. **Social History:** Attends private preschool

Table A: History

History				
HPI Location Severity Timing Modifying Factors Quality Duration Context Assoc Signs & Symptoms	Brief (1-3)	Brief (1-3)	Extended (4 or more)	Extended (4 or more)
ROS Const GI Integ Hem/lymph Eyes GU Neuro All/Immuno Card/Vasc Musculo Psych All other negative Resp ENT, mouth Endo	None	Pertinent to problem (1 system)	Extended (2-9 systems)	Complete
PFSH Past history (current meds, past illnesses, operations, injuries, treatments) Family history (a review of medical events in the patient's family) Social history (an age appropriate review of past and current activities)	None	None	Pertinent (1 history area)	Complete (2 (est) or 3 (new) history areas)
	Problem Focused	Expanded Problem Focused	Detailed	Comprehensive

Looking at the grid, you must meet or exceed all levels of history. Because we do not have a complete ROS, we do not have a comprehensive level of history. The highest level of history for which we have met all three levels of history components is a Detailed history.

Introduction

The objective for this chapter is to introduce you to a diverse group of noninvasive or minimally invasive services. You will learn steps to correct coding concepts, proper application of modifiers, diagnosis coding tips and some applicable HCPCS Level II references. This chapter covers multiple specialties. Included in this category are:

- Immunizations
- Vaccines, Toxoids
- Psychiatry
- Biofeedback
- Dialysis
- Gastroenterology
- Ophthalmology
- Otorhinolaryngology
- Cardiovascular
- Non-invasive Diagnostic Vascular Studies
- Pulmonary
- Allergy & Clinical Immunology
- Endocrinology
- Neurology/Neuromuscular Procedures
- Medical Genetics & Genetic Counseling Services
- Central Nervous System Assessments/Tests
- Health & Behavior Assessment/Intervention
- Hydration, Therapeutic, Prophylactic, Infusions & Injections

- Photodynamic Therapy
- Special Dermatological Procedures
- Physical Medicine & Rehabilitation
- Nutritional Therapy
- Acupuncture
- Osteopathic & Chiropractic Manipulative Treatment
- Education & Training for Patient Self Management
- Non-Face-To-Face Nonphysician Services
- Qualifying Circumstances for Anesthesia
- Moderate Sedation
- Home Health Procedures/Services
- Medication Therapy Management Services

Anti-infective Immunizations

Codes 90281-90399 describe anti-infective immunizations that are derived from human blood or products created in a laboratory through modification of genetic human and/or animal protein. Each code is specific to the type of anti-infective to be administered, with 90399 reserved for an immune globulin that is not described in a code.

Do not report modifier 51 if these services are performed with another procedure.

When microorganisms enter the body through a barrier breach (example: cut on skin), the inflammatory response directs immune system components to the infected site. Common pathogens responsible for infection are fungi, gram-positive, and gram-negative organisms. The body's immune system produces antibodies (or immunity) when foreign substances (antigens) are introduced. Immune globulins are concentrations of

Documentation Dissection

Case 1

Physical Therapy

Patient Name: Jill Smith

Date of Service: 10/10/201x

Medical Record#: 12345

Date of Birth: 01/01/1957

Provider: Alexis Timmins, MD

Treating Clinician: Robert Thomas, PT

Certification from: 09/01/201x

Certification to: 10/30/201x

1. The patient has an acquired absence of the breast.

2. The reason for PT is lymph node swelling.

1.
2.

Patient has a history of breast cancer; post mastectomy, has lymph node swelling in the left axillary region. She requires manual manipulation drainage of the affected area, and has presented to the outpatient physical medicine department. Today's treatment stimulated the lymph nodes to lessen the backlog of fluid. The patient states she is feeling very relaxed, and the pain from the swelling is reduced.

Diagnosis: Swollen lymph nodes
Status-Post Mastectomy

Treatment: Manual manipulation drainage—15 minutes

Patient: Jack Smith Jones, MD Diagnosis: Lymph Node Swelling Ref. Physician: Will Jones, MD

Visit	Date	97160 group	Date	97160 group	Date	97160 group
Therapeutic Exercise (list each below)	10/10/201x					
Therapeutic Activities (list each)						
	ROM WS GR MPR PPT-___min		ROM WS GR MPR PPT-___min		ROM WS GR MPR PPT-___min	
97110 TE Treatment Time	_____ min		_____ min		_____ min	

Visit	Date	97160 group	Date	97160 group	Date	97160 group
97530 TA Treatment Time	_____ min		_____ min		_____ min	
Manual Therapy	97140		97140		97140	
3. Manual lymphatic drainage	15 min		_____ min		_____ min	4.
	_____ min		_____ min		_____ min	
Modalities (list each below)						
Cold Packs	_____ min		_____ min		_____ min	
Hot Packs	_____ min		_____ min		_____ min	
	_____ min		_____ min		_____ min	
	_____ min		_____ min		_____ min	
Total Time (Code Treatment Time)	15 min					
Time In						
Time Out						
PT Initials	RT					

3. Manual lymphatic therapy is considered Manual Therapy.

4. The service was performed for 15 minutes.

What are the CPT® and ICD-9-CM codes reported?

CPT® code: 97140

ICD-9-CM codes: 785.6, V45.71

RATIONALE:

CPT® code: The note states that the patient was sent to the outpatient physical medicine department. Go to the Index of your CPT® book under Physical Medicine/Therapy. Manual Therapy is referenced by code 97140. Review the description of code 97140. The descriptor indicates manual therapy techniques, one or more regions, and does include lymphatic drainage. This is the correct code for the service.

Review the therapy notes to determine the time. Report the number of units per 15-minute increments of time as stated in the notes. 97140 x 1

Prepare Now for Significant Health Care Changes

As technology and scientific knowledge progress, so too, does the practice of medicine. Diagnostic and therapeutic methods now in common use—think minimally-invasive surgeries and advanced imaging techniques—would have seemed like science fiction only a generation ago. This ever-quickening evolution means that, to keep pace, the code sets we use to report medical services, procedures, drugs, and devices must be revised continually.

Likewise, the health care industry now operates within a complex and ever-changing regulatory environment, which aims to do everything from improving medical outcomes, to protecting patient's personal information, to modernizing medical records-keeping, to reducing the costs of medical care. This final issue is perhaps the most pressing, and certainly the most explosive: In the United States, health care now accounts for nearly one-sixth of the entire economy, and that percentage is growing. How best to contain these ever-increasing costs has become a contentious ideological debate, and the subject of some of the most intense political wrangling of the past several decades.

Taken together, the constant evolution of medical practice and a regulatory regime fashioned in part by uncoordinated third-party insurers, and in part by government agendas that vary with each election cycle, mean that change is the only certainty in healthcare. The responsible, professional coder must remain educated and responsive to changes as they occur.

The future of health care undoubtedly holds surprises that we cannot anticipate yet, but several upcoming changes have been mandated for which we can prepare ourselves now. Among the most significant for coders are:

- the transition to ICD-10-CM and the associated 5010 transaction standard

- an extension of the physician quality reporting initiative (PQRI)
- the move toward preventative care and the changing role for physicians
- the technology and cost-containment driven expansion of patient care beyond the traditional physician office
- the push to adopt the electronic health record (EHR)
- a tougher focus on fighting fraud and abuse

We will discuss each of these in turn.

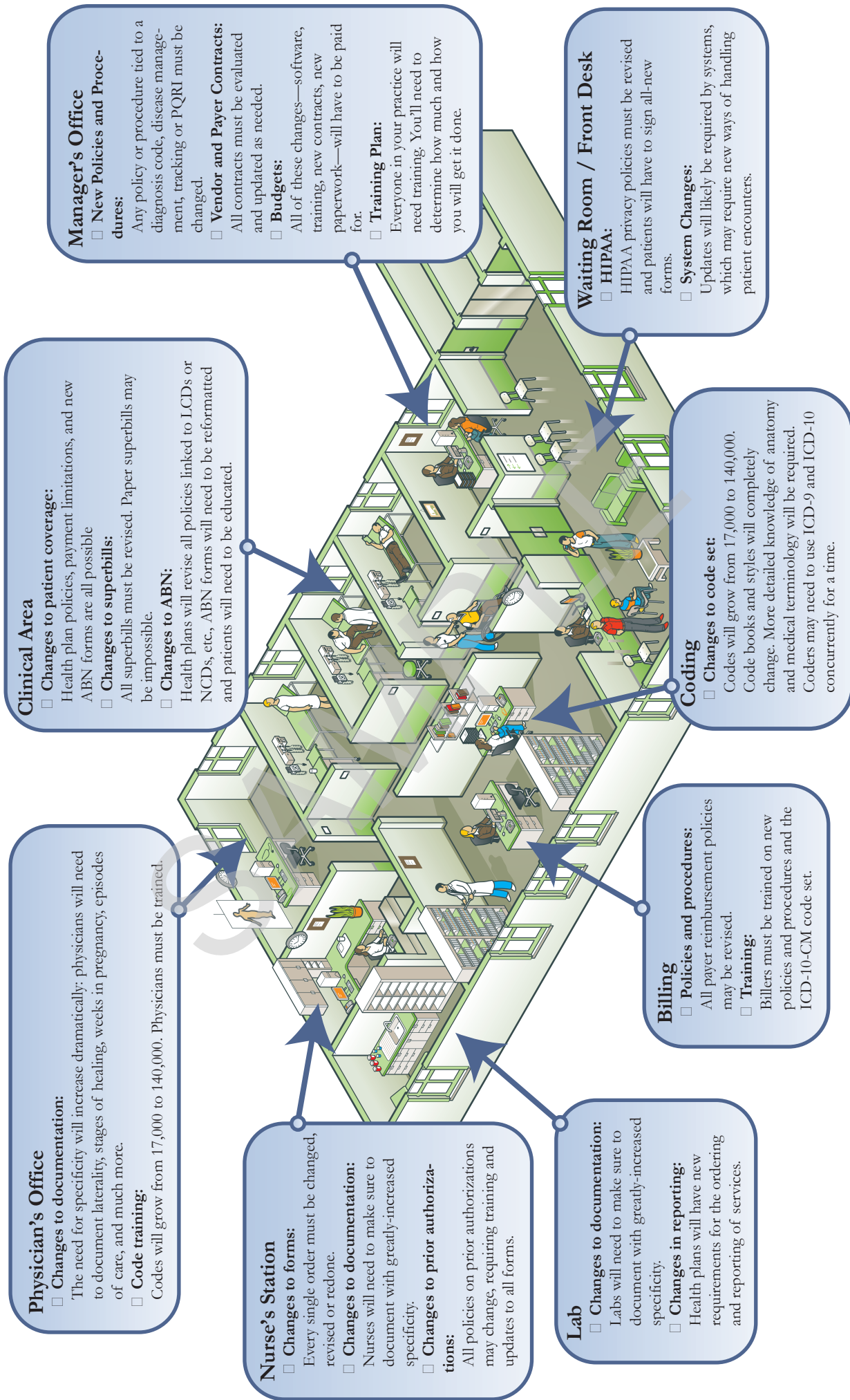
ICD-10-CM

On January 15, 2009 the Department of Health and Human Services (HHS) released the final regulation to move from the current ICD-9-CM coding system to the ICD-10 coding system, beginning October 1, 2013. Subsequent determinations confirmed this implementation date.

The ICD-10-CM consists of:

- tabular lists containing cause-of-death titles and codes (Volume 1)
- inclusion and exclusion terms for cause-of-death titles (Volume 1)
- description, guidelines, and coding rules (Volume 2)
- an alphabetical index to diseases and nature of injury, external causes of injury, table of drugs and chemicals (Volume 3)

ICD-10-CM is similar to ICD-9-CM, in that some terminology, conventions, classifications, and other features are similar; however, whereas ICD-9-CM contains approximately 17,000 codes, ICD-10 contains more than 141,000 codes, and accommodates a host of new diagnoses and procedures.



Physician's Office

- ❑ **Changes to documentation:** The need for specificity will increase dramatically: physicians will need to document laterality, stages of healing, weeks in pregnancy, episodes of care, and much more.
- ❑ **Code training:** Codes will grow from 17,000 to 140,000. Physicians must be trained.

Nurse's Station

- ❑ **Changes to forms:** Every single order must be changed, revised or redone.
- ❑ **Changes to documentation:** Nurses will need to make sure to document with greatly-increased specificity.
- ❑ **Changes to prior authorizations:** All policies on prior authorizations may change, requiring training and updates to all forms.

Clinical Area

- ❑ **Changes to patient coverage:** Health plan policies, payment limitations, and new ABN forms are all possible
- ❑ **Changes to superbills:** All superbills must be revised. Paper superbills may be impossible.
- ❑ **Changes to ABN:** Health plans will revise all policies linked to LCDs or NCDs, etc. ABN forms will need to be reformatted and patients will need to be educated.

Manager's Office

- ❑ **New Policies and Procedures:** Any policy or procedure tied to a diagnosis code, disease management, tracking or PQR must be changed.
- ❑ **Vendor and Payer Contracts:** All contracts must be evaluated and updated as needed.
- ❑ **Budgets:** All of these changes—software, training, new contracts, new paperwork—will have to be paid for.
- ❑ **Training Plan:** Everyone in your practice will need training. You'll need to determine how much and how you will get it done.

Lab

- ❑ **Changes to documentation:** Labs will need to make sure to document with greatly-increased specificity.
- ❑ **Changes in reporting:** Health plans will have new requirements for the ordering and reporting of services.

Billing

- ❑ **Policies and procedures:** All payer reimbursement policies may be revised.
- ❑ **Training:** Billers must be trained on new policies and procedures and the ICD-10-CM code set.

Coding

- ❑ **Changes to code set:** Codes will grow from 17,000 to 140,000. Code books and styles will completely change. More detailed knowledge of anatomy and medical terminology will be required. Coders may need to use ICD-9 and ICD-10 concurrently for a time.

Waiting Room / Front Desk

- ❑ **HIPAA:** HIPAA privacy policies must be revised and patients will have to sign all-new forms.
- ❑ **System Changes:** Updates will likely be required by systems, which may require new ways of handling patient encounters.