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

2022 Revised Edition

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OF THE
AMERICAN HOSPITAL ASSOCIATION

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

• Serve as the U.S. clearinghouse for issues related to the use of ICD-9-CM
• Work with the National Center for Health Statistics and the Centers for Medicare & Medicaid Services to maintain the integrity of the classification system
• Recommend revisions and modifications to the current and future revisions of the ICD
• Develop educational material and programs on ICD-9-CM

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

In 2014, the Central Office stopped providing ICD-9-CM advice and fully transitioned to ICD-10-CM/PCS advice while launching the stand-alone publication AHA Coding Clinic® for ICD-10-CM and ICD-10-PCS.
Nelly Leon-Chisen gratefully acknowledges the invaluable contributions of Anita Rapier, Gretchen Young-Charles, and Denene M. Harper, members of the American Hospital Association’s Central Office on ICD-10-CM and ICD-10-PCS, who assisted in the revision and review of the manuscript for the handbook and the case summary exercises, as well as the preparation of instructors’ ancillary materials.

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Finally, Ms. Leon-Chisen wishes to acknowledge the tradition of excellence in coding education established by Faye Brown through the ICD-9-CM Coding Handbook. Ms. Brown’s work served as the foundation on which the present handbook was built. The author humbly hopes this handbook can continue educating generations of coding professionals as the field implements ICD-10-CM and ICD-10-PCS.
How to Use This Handbook

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

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

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

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

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

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

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

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

Additional resources for educators are available for download on the AHA Central Office website: www.CodingClinicAdvisor.com. AHA offers materials designed to supplement classroom work and exercises in this handbook. Available materials include slide decks covering the key points of each chapter and exercise test banks. Please visit www.CodingClinicAdvisor.com and register as an educator to download these training materials.

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


To use this handbook effectively, readers should work through the coding examples provided throughout the text until they fully understand the coding principles under discussion. Readers should be able to arrive at correct code assignments by following the instructions provided and reviewing the pertinent handbook material until it is fully understood. Exercises in the body of each chapter should be completed as they come up in the discussion, rather than at the end of the chapter or section. Most chapters provide a review exercise with additional material that covers the entire chapter. There is also a final review exercise, located before appendix A in this handbook, that offers additional coding practice. Answers to all of these exercises are provided in the edition with answers.

The handbook follows three conventions:

- In some examples, a hyphen is used at the end of a code to indicate that additional characters are required but cannot be assigned in the example because certain information needed for assignment of these characters is not given. This is done to emphasize concepts and specific guidelines without going too deeply into specific coding situations.

- The underlining of codes in text examples indicates correct sequencing; that is, the underlined code must be sequenced first in that particular combination of codes. When no code is underlined, there is no implicit reason why any of the codes in the series should be sequenced first. In actual coding, of course, other information in the health record may dictate a different sequence. This underlining convention is used in the handbook solely as a teaching device. It is not an element of the ICD-10-CM/PCS coding system.

- In the edition with answers, the underlining of words in exercise questions indicates the appropriate terms to be referenced in using the alphabetic indexes. The underlining of codes in the answer column of the exercises indicates correct code sequencing, as it does in the examples in the main text.

**Changes in Code Usage**

Official coding guidelines approved by the four Cooperating Parties responsible for administering the ICD-10-CM and ICD-10-PCS systems in the United States (American Hospital Association, American Health Information Management Association, Centers for Medicare & Medicaid Services, and National Center for Health Statistics) are published on a yearly basis. The fiscal year 2022 (FY 2022) updates to the ICD-10-CM and ICD-10-PCS code sets have been incorporated into this edition of the handbook.

AHA Coding Clinic® for ICD-10-CM and ICD-10-PCS advice published through Second Quarter 2021 has been included in this edition of the handbook.
Format AND Conventions AND Current Coding Practices FOR ICD-10-CM AND ICD-10-PCS
LEARNING OUTCOMES

After studying this chapter, you should be able to:

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

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

Explain the alphabetization rules and indentation patterns.

TERM TO KNOW

ICD-10-CM

*International Classification of Diseases, Tenth Revision, Clinical Modification*; a medical classification system used for the collection of information regarding disease and injury.

CHAPTER OVERVIEW

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

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

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

DEVELOPMENT OF ICD-10-CM

ICD-10 was released by WHO in 1993 and contains only diagnosis codes. ICD-10-CM is the clinical modification developed under the leadership of the NCHS for use in the United States. ICD-10-CM was officially implemented in the United States in October 2015. All modifications to ICD-10 need to conform to the WHO conventions for ICD. ICD-10-CM is in the public domain. However, neither the codes nor the code titles may be changed except through the Coordination and Maintenance Process overseen jointly by the CDC and CMS. ICD-10-CM consists of more than 72,000 codes.

FORMAT

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

TABULAR LIST OF DISEASES AND INJURIES

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

In addition, Z codes represent factors influencing health status and contact with health services that may be recorded as diagnoses. V, W, X, and Y codes are used to indicate the external circumstances responsible for injuries and certain other conditions. V, W, X, Y, and Z codes are
FIGURE 1.1 Table of Contents from ICD-10-CM

Preface

Introduction

ICD-10-CM Conventions

ICD-10-CM Official Guidelines for Coding and Reporting

ICD-10-CM Index to Diseases and Injuries

ICD-10-CM Neoplasm Table

Table of Drugs and Chemicals

ICD-10-CM Index to External Causes

ICD-10-CM Tabular List of Diseases and Injuries

CHAPTER 1—Certain infectious and parasitic diseases
CHAPTER 2—Neoplasms
CHAPTER 3—Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism
CHAPTER 4—Endocrine, nutritional and metabolic diseases
CHAPTER 5—Mental, behavioral and neurodevelopmental disorders
CHAPTER 6—Diseases of the nervous system
CHAPTER 7—Diseases of the eye and adnexa
CHAPTER 8—Diseases of the ear and mastoid process
CHAPTER 9—Diseases of the circulatory system
CHAPTER 10—Diseases of the respiratory system
CHAPTER 11—Diseases of the digestive system
CHAPTER 12—Diseases of the skin and subcutaneous tissue
CHAPTER 13—Diseases of the musculoskeletal system and connective tissue
CHAPTER 14—Diseases of the genitourinary system
CHAPTER 15—Pregnancy, childbirth and the puerperium
CHAPTER 16—Certain conditions originating in the perinatal period
CHAPTER 17—Congenital malformations, deformations and chromosomal abnormalities
CHAPTER 18—Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified
CHAPTER 19—Injury, poisoning and certain other consequences of external causes
CHAPTER 20—External causes of morbidity
CHAPTER 21—Factors influencing health status and contact with health services
CHAPTER 22—Codes for special purposes
reviewed briefly in chapter 12 of this handbook and in more detail in the chapters discussing the conditions to which they apply.

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

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

**Code Structure**

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

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

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

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

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

For example:

- **K29** Gastritis and duodenitis
  - **K29.0** Acute gastritis
  - **K29.00** Acute gastritis without bleeding
- **R10** Abdominal and pelvic pain
  - **R10.8** Other abdominal pain
  - **R10.81** Abdominal tenderness
    - **R10.811** Right upper quadrant abdominal tenderness
Placeholder Character

ICD-10-CM uses the letter “x” as a placeholder character in certain codes to allow for future expansion. An example of this may be seen at the poisoning, adverse effect, underdosing (T36–T50), and toxic effects (T51–T65) codes. For these categories, the sixth character represents the intent: accidental, intentional self-harm, assault, undetermined, adverse effect, or underdosing. Where a placeholder exists, the “x” must be used for the code to be considered valid.

For example, “x” is used as the fifth character in the following codes where the sixth character of “1” represents accidental, and “2” represents intentional self-harm:

- T37.5x1 Poisoning by antiviral drugs, accidental (unintentional)
- T37.5x2 Poisoning by antiviral drugs, intentional self-harm
- T52.0x1 Toxic effect of petroleum products, accidental (unintentional)
- T52.0x2 Toxic effect of petroleum products, intentional self-harm

Certain categories have an additional seventh-character value. The applicable seventh-character value is required for all codes within the category, or as the notes in the Tabular List instruct. The seventh-character value must always be the seventh character in the code. If a code is not a full six characters, a placeholder character “x” must be used to fill in the empty characters when a seventh-character value is required. Seventh-character values can be seen in chapter 15 of ICD-10-CM, Pregnancy, Childbirth and the Puerperium (O00–O9A), as well as in chapter 19 of ICD-10-CM, Injury, Poisoning and Certain Other Consequences of External Causes (S00–T88), and in chapter 20 of ICD-10-CM, External Causes of Morbidity (V00–V99).

An example of the use of the placeholder character “x” and the seventh-character value is shown here with an excerpt from the Tabular List:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T16</td>
<td>Foreign body in ear</td>
</tr>
<tr>
<td></td>
<td>Includes: foreign body in auditory canal</td>
</tr>
<tr>
<td></td>
<td>The appropriate 7th character values are to be added to each code from category T16:</td>
</tr>
<tr>
<td>A</td>
<td>initial encounter</td>
</tr>
<tr>
<td>D</td>
<td>subsequent encounter</td>
</tr>
<tr>
<td>S</td>
<td>sequela</td>
</tr>
<tr>
<td>T16.1</td>
<td>Foreign body in right ear</td>
</tr>
<tr>
<td>T16.2</td>
<td>Foreign body in left ear</td>
</tr>
<tr>
<td>T16.9</td>
<td>Foreign body in ear, unspecified ear</td>
</tr>
</tbody>
</table>

A child presents to the emergency department with a bean in the right ear. The mother has brought the child because she was not able to remove the bean at home. This encounter would be assigned code T16.1xA. The Tabular List shows subcategory T16.1 as the descriptor best fitting this scenario. Category T16 requires a seventh-character value. Because the code subcategory has only four characters (T16.1), the placeholder “x” is inserted twice to preserve the code structure before the seventh character “A” is added to report this as the initial encounter.

ALPHABETIC INDEX

The Alphabetic Index consists of the Index of Diseases and Injuries, the Index to External Causes, the Neoplasm Table, and the Table of Drugs and Chemicals.
CHAPTER 1
Introduction to the ICD-10-CM Classification

The Alphabetic Index includes entries for main terms, subterms, and more specific subterms. An indented format is used for ease of reference.

Main terms identify disease conditions or injuries. Subterms indicate site, type, or etiology for conditions or injuries. For example, acute appendicitis is listed under Appendicitis, acute, and stress fracture is listed under Fracture, traumatic, stress. Occasionally, it is necessary to think of a synonym or another alternative term in order to locate the correct entry. There are, however, exceptions to this general rule, including the following:

- Congenital conditions are often indexed under the main term Anomaly rather than under the name of the condition.
- Conditions that complicate pregnancy, childbirth, or the puerperium are usually found under such terms as Delivery, Pregnancy, and Puerperal. They may also appear under the main term for the condition causing the complication by referencing the subterm “complicating childbirth (labor),” “complicating pregnancy,” or “complicating puerperium.” (Examples of these types of entries appear under the main term Hypertension in the Alphabetic Index.)
- Many of the complications of medical or surgical care are indexed under the term Complications rather than under the name of the condition.
- Late effects of an earlier condition can be found under Sequelae, or under the condition (as in the case of traumatic injuries).

A clear understanding of the format of the Alphabetic Index is a prerequisite for accurate coding. Understanding the indention pattern of the entries is a very important part of learning how to use the Index. A variety of vendors provide printed versions and others have computer programs for coding, but the format may not be consistent across versions. The PDF version of the Index from the NCHS represents each indention level by a hyphen. In general, however, the following pattern is used by several codebook publishers:

- Main terms are set flush with the left-hand margin. They are printed in bold type and begin with a capital letter.
- Subterms are indented one standard indention (equivalent to about two word-processing spaces) to the right under the main term. They are printed in regular type and begin with a lowercase letter.
- More specific subterms are indented farther and farther to the right as needed, always indented by one standard indention from the preceding subterm and listed in alphabetical order.
- A dash (-) at the end of an index entry indicates that additional characters are required.
- Carryover lines are indented two standard indentions from the level of the preceding line. Carryover lines are used only when the complete entry cannot fit on a single line. They are indented farther to avoid confusion with subterm entries.

In printed versions, entries are presented in two, three, or four columns per page, dictionary style. The subterms listed under the main term Metrorrhagia in the following entry provide an example:

<table>
<thead>
<tr>
<th>Metrorrhagia</th>
<th>N92.1</th>
<th>[main term]</th>
</tr>
</thead>
<tbody>
<tr>
<td>climacteric</td>
<td>N92.4</td>
<td>[subterm]</td>
</tr>
<tr>
<td>menopausal</td>
<td>N92.4</td>
<td>[subterm]</td>
</tr>
<tr>
<td>postpartum NEC (atomic) (following delivery of placenta)</td>
<td>O72.1</td>
<td>[carryover line]</td>
</tr>
<tr>
<td>delayed or secondary</td>
<td>O72.2</td>
<td>[more specific subterm]</td>
</tr>
<tr>
<td>preclimacteric or premenopausal</td>
<td>N92.4</td>
<td>[subterm]</td>
</tr>
<tr>
<td>psychogenic</td>
<td>F45.8</td>
<td>[subterm]</td>
</tr>
</tbody>
</table>
Each of the subterms (climacteric, menopausal, postpartum, preclimacteric, and psychogenic) is indented one standard indentation from the level of the main term and is listed in alphabetical order. The fifth line is a carryover line set two standard indentions from the preceding line. The sixth line is a more specific entry (“delayed or secondary” under the subterm “postpartum”).

EXERCISE 1.1
A reproduction of a page from the Alphabetic Index is shown below. Label the numbered lines as either main terms, subterms, or carryover lines. Each hyphen is meant to represent one level of indention.

1. **Railroad neurosis** F48.8  
   **Main term**

2. **Railway spine** F48.8  
   **Main term**

   **Raised**—see also Elevated

3. **Rake teeth**, tooth M26.39  
   **Main term**

   **Rales** R09.89

4. **Ramifying renal pelvis** Q63.8  
   **Main term**

5. **Ramsay-Hunt disease or syndrome**—(see also

   **-meaning dyssynergia cerebellaris myoclonica** G11.1  
   **Subterm**

   **Ranula** K11.6
   **-congenital** Q38.4

6. **Rape**  
   **Main term**

   **-adult**  
   **-confirmed** T74.21
   **-suspected** T76.21
   **-alleged, observation or examination, ruled out**

7. **-child**  
   **-confirmed** T74.22
   **-suspected** T76.22
Alphabetization Rules

To locate main terms and subterms quickly and efficiently, it is important to understand the alphabetization rules followed in the Alphabetic Index. Letter-by-letter alphabetization is used. The system of alphabetization ignores the following:

- Single spaces between words
- Single hyphens within words
- The final “s” in the possessive forms of words

The following list shows an example of letter-by-letter alphabetization with these modifications:

Beckwith-Wiedemann syndrome Q87.3 [ignores hyphen]
Beer drinker’s heart (disease) I42.6 [ignores space between words]
Blood-forming organs, disease D75.9 [ignores hyphen]
Bloodgood’s disease—see Mastopathy, cystic [ignores possessive form]

Numerical Entries

Subterm entries that contain numerical characters or words indicating numbers are the first entries under the appropriate main term or subterm. Subterm entries are listed in alphabetical order when they include numbers written in their spelled-out form. For example, Paralysis, nerve, fourth, comes before, rather than after, Paralysis, nerve, third.

There are two different patterns for displaying numerical entries, depending on the book publisher or software used. One version arranges Roman numerals (such as “II”) and Arabic numerals (such as “2”) in numerical order (for example, I, II, III, IV, V, VI, VII, VIII, IX, X, and so forth). However, the official government version arranges Roman numerals as letters in alphabetical order, as shown in the following example (each hyphen below represents one level of indentation):

Deficiency . . .

  factor
   --Hageman D68.2
   --I (congenital) (hereditary) D68.2
   --II (congenital) (hereditary) D68.2
   --IX (congenital) (functional) (hereditary) (with functional defect) D67
   --multiple (congenital) D68.8
   ---acquired D68.4
   --V (congenital) (hereditary) D68.2
   --VII (congenital) (hereditary) D68.2
   --VIII (congenital) (functional) (hereditary) (with functional defect) D66
   ---with vascular defect D68.0
   --X (congenital) (hereditary) D68.2
   --XI (congenital) (hereditary) D68.1
   --XII (congenital) (hereditary) D68.2
   --XIII (congenital) (hereditary) D68.2
Connecting Words

Words such as “with,” “in,” “due to,” and “associated with” are used to express the relationship between the main term and a subterm (or between the subterm and a sub-subterm); these words indicate an associated condition or etiology. Subterms preceded by “with” or “without” are not listed in alphabetical order in the version of the Index from NCHS. Such subterms appear immediately below the main term or any appropriate subterm entries. Coding professionals who fail to remember this feature of the alphabetization rules often make coding errors by overlooking the appropriate subterm. Please note that some publishers and encoder software vendors have deviated from this practice and listed the subterms “with” and “without” in alphabetical order. Review the following subterm entries under the main term Bronchitis using the instructions at the end of this example. Note that each hyphen represents one level of indentation:

Bronchitis (diffuse) (fibrinous) (hypostatic) (infective) (membranous) J40
1 -with
   --influenza, flu or grippe—see Influenza, with respiratory manifestations NEC
2 --obstruction (airway) (lung) J44.9
3 --tracheitis (15 years of age and above) J40
   ---acute or subacute J20.9
   ---chronic J42
   ---under 15 years of age J20.9
4 -acute or subacute (with bronchospasm or obstruction) J20.9
5 --with
   ---bronchiectasis J47.0
   ---chronic obstructive pulmonary disease J44.0
6 --chemical (due to gases, fumes or vapors) J68.0
7 --due to
   ---fumes or vapors J68.0
   ---Haemophilus influenzae J20.1
   ---Mycoplasma pneumoniae J20.0
   ---radiation J70.0
   ---specified organism NEC J20.8
   ---Streptococcus J20.2
   ---virus
      ---coxsackie J20.3
      ---echovirus J20.7
      ---parainfluenzae J20.4
      ---respiratory syncytial J20.5
      ---rhinovirus J20.6
      ---viral NEC J20.8
8 -allergic (acute) J45.909
9 --with
   ---exacerbation (acute) J45.901
   ---status asthmaticus J45.902
10 -arachidic T17.528
Refer to sections 1, 4, 8, and 10 as indicated in the example. Note that the subterms preceded by the connecting word “with” immediately follow the main term Bronchitis and precede the subterms beginning with the letter “a” (sections 4, 8, and 10).

Refer to sections 5, 6, and 7 as indicated in the example. Note that the more specific subterms preceded by the connecting word “with” immediately follow the subterm “acute or subacute.” In this case, the subterms beginning with the word “with” precede the subterms beginning with the letters “c” and “d” (sections 6 and 7).

Also note that the subterms indented under the connecting word “with” are listed in alphabetical order. For example, sections 1, 2, and 3 indicated in the example are in alphabetical order.

**Index Tables**

The main body of the Alphabetic Index uses a table for the systematic arrangement of subterms under the main entry Neoplasm. This table simplifies access to complex combinations of subterms. The location of the Neoplasm Table will vary in printed editions of the codebook, depending on the publisher. It may be found following the Index entry Neoplasm or following the Alphabetic Index and before the Table for Drugs and Chemicals. The use of this table is discussed in chapter 29 of this handbook. The Table of Drugs and Chemicals is discussed in chapter 32 of this handbook.

The format and alphabetization rules used within the tables are the same as those followed in the rest of the Alphabetic Index. Although the uses of these two tables are discussed in detail later in this handbook, it is useful for the reader to become familiar with the location and format of the tables at this point in the discussion.