

CHAPTER 2

Diagnosis Coding— A Number for Every Disease

What is a Diagnosis?

A diagnosis is the identification of a disease from its symptoms. Obviously, the next question is “What is a symptom?” You are the best judge of that because a symptom is a perceptible change in your body or its functions that can indicate disease. Although it is possible to be sick or have a disease and have no symptoms, a symptom is a hint to you that a problem may be occurring. This means you should seek professional help.

When you have a sore throat, that is a symptom. If the sore throat lasts more than a day or two, you will probably visit your doctor to get his or her opinion about the cause of the sore throat. Based on your symptom, the sore throat, and an exam of your physical condition, the doctor may arrive at a diagnosis. There are more than 100 diagnoses that could possibly be the cause of your sore throat. How will the doctor arrive at the correct diagnosis?

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Deducing the Diagnosis—History

The first step in the path toward a diagnosis is the **history**. The doctor may ask you:

- How long have you had the sore throat? (duration)
- What part of your throat hurts? (location)
- Is the pain continuous? Better or worse? (timing)
- How does it compare to other sore throats you have had? (severity)
- Do you also have other symptoms? (associated signs and symptoms)
- What are you doing when it hurts? (context)
- How would you describe the pain? (quality)
- What have you done to obtain relief? Did it work? (modifying factors)

These eight categories of questions are known as the **History of Present Illness** (HPI). They constitute a chronological description of your present illness from the first sign or symptom to the present. Once you have responded to these questions, the direction to follow next will usually be clearer to the doctor.

A **Review of Systems** (ROS) is an inventory of body systems obtained through a series of questions seeking to identify signs

REVIEW OF SYMPTOMS: Please check (✓) any current problems you have on the list below:

<i>Constitutional</i>	<i>Respiratory</i>	<i>Neurological</i>
<input type="checkbox"/> Fevers/chills/sweats	<input type="checkbox"/> Cough/wheeze	<input type="checkbox"/> Headaches
<input type="checkbox"/> Unexplained weight loss/gain	<input type="checkbox"/> Difficulty breathing	<input type="checkbox"/> Dizziness/light-headedness
<input type="checkbox"/> Change in energy/weakness	<i>Gastrointestinal</i>	<input type="checkbox"/> Numbness
<input type="checkbox"/> Excessive thirst or urination	<input type="checkbox"/> Abdominal pain	<input type="checkbox"/> Memory loss
<i>Eyes</i>	<input type="checkbox"/> Blood in bowel movement	<input type="checkbox"/> Loss of coordination
<input type="checkbox"/> Change in vision	<input type="checkbox"/> Nausea/vomiting/diarrhea	<i>Psychiatric</i>
<i>Ears/Nose/Throat/Mouth</i>	<i>Genitourinary</i>	<input type="checkbox"/> Anxiety/stress
<input type="checkbox"/> Difficult hearing/ringing in ears	<input type="checkbox"/> Nighttime urination	<input type="checkbox"/> Problems with sleep
<input type="checkbox"/> Problems with teeth/gums	<input type="checkbox"/> Leaking urine	<input type="checkbox"/> Depression
<input type="checkbox"/> Hay fever/allergies	<input type="checkbox"/> Unusual vaginal bleeding	<i>Blood/Lymphatic</i>
<i>Cardiovascular</i>	<input type="checkbox"/> Discharge: penis or vagina	<input type="checkbox"/> Unexplained lumps
<input type="checkbox"/> Chest pain/discomfort	<i>Musculo-skeletal</i>	<input type="checkbox"/> Easy bruising/bleeding
<input type="checkbox"/> Palpitations	<input type="checkbox"/> Muscle/joint pain	<i>Other</i>
<i>Chest (breast)</i>	<i>Skin</i>	<input type="checkbox"/> Problems with sexual function
<input type="checkbox"/> Breast lump/nipple discharge	<input type="checkbox"/> Rash/mole change	

Figure 2-1 “Review of systems” form your doctor may ask you to complete.

and/or symptoms that you may be experiencing. Your doctor may give you a check-off form that you fill out yourself in order to get your responses to these questions.

There are fourteen systems that the doctor may review:

Constitutional	Weight, temperature, fatigue, sleep habits, eating habits
Eyes	Vision, use of glasses, pain, blurry vision, halos, redness, tearing, itching
Ears, Nose, Mouth, Throat	Pain, hearing loss, infections, nose bleeds, ringing in ears, runny nose, colds, toothaches, sore throat, sores
Cardiovascular	Chest pain, shortness of breath on exertion, murmurs, palpitations, varicose veins, edema, hypertension
Respiratory	Cough, wheezing, bronchitis, color of sputum, spitting up blood
Gastrointestinal	Stomach pain, heartburn, nausea, vomiting, bloating, bowel movements, hemorrhoids, indigestion
Genitourinary	Blood in urine, incontinence, pain on urination, urgency, frequency, urinating at night, dribbling Female: menstrual history, sexual history, infections, Pap smears, menopause Male: hernias, sexual history, pain, discharge, infections
Musculoskeletal	Joint pain, swelling, redness, limited range of motion, stiffness, deformity
Skin / Breast	Lesions, lumps, sores, bruising, itching, dryness, moles

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Neurological	Dizziness, fainting, seizures, falls, numbness, pain, abnormal sensation, vertigo, tremor
Psychiatric	Depression, anxiety, memory loss, sleep problems, nervousness
Endocrine	Hot or cold intolerance, goiter, protruding eyeballs, diabetes, hair distribution, increasing thirst, thyroid disorders
Hematologic / Lymphatic	Anemia, bruising, enlarged lymph nodes, transfusion history
Allergy / Immune	Hay fever, drug or food allergies, sinus problems, HIV status, occupational exposure

The doctor may perform all or part of the review of systems, depending on your presenting problem. The review of systems is intended to identify symptoms you may have forgotten to mention. It also explores and provides support for the doctor's theory about the cause of your symptom. If he feels that the sore throat is due to a respiratory allergy, you can expect to see the respiratory and allergy portions emphasized in the review of systems.

Because there are hereditary or environmental factors that contribute to many diseases, the final part of the history performed by the doctor is known as the **Past / Family / and Social History**.

Past History includes illnesses, surgeries, medications, allergic reactions. A thorough documentation of past history should include checking by the physician for objective evidence that reported conditions actually existed. Lab results and diagnostic testing reports in your medical record should support the history.

Family History covers any factor within your immediate family that may affect you or the probability that you will have specific conditions, such as cancer, diabetes, heart disease or other hereditary risk factors. The presence of communicable diseases that are

not hereditary can also be important if you are exposed through contact with your family.

Social History encompasses a wide variety of habits, including

- smoking history: how much, how long
- alcohol intake: type, quantity, frequency
- other drug use: type, route, frequency, duration
- sexual activity: gender orientation, birth control, marital status, risk factors
- work history: occupation, risk factors
- hobbies, activities, interests

The information in the social history not only provides additional information relevant to determining the cause of the presenting symptoms but can also facilitate the physician-patient relationship if your doctor knows more about you as a person and not just as a body.

Deducing the Diagnosis—Exam

According to the federal government Center for Medicare and Medicaid Services (CMS), there are 12 different types of physical examinations that can be performed by your doctor. Unless you are seeing a specialist, your doctor will usually perform a “general multi-system examination,” including the systems he or she feels are relevant to your presenting problem or symptom.

A few definitions of terms used in describing physical exam procedures include:

- Palpation: Examination by pressing on the surface of the body to feel the organs or tissues underneath.
- Auscultation: Listening to sounds within the body, either by direct application of the ear, or through a stethoscope.

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- Percussion: A method of examination by tapping the fingers at various points on the body to determine the position and size of structures beneath the surface.

The officially defined¹ “general multi-system examination” includes:

Constitutional

- Measurement of any 3 of the following 7 vital signs:
 - sitting or standing blood pressure
 - supine blood pressure
 - pulse rate and regularity
 - respiration
 - temperature
 - height
 - weight
- General appearance of the patient (e.g., development, nutrition, body habitus, deformities, attention to grooming)

Eyes

- Inspection of conjunctivae and lids
- Examination of pupils and irises (e.g., reaction to light and accommodation, size and symmetry)
- Ophthalmoscopic examination of optic discs (e.g., size, C/D ratio, appearance) and posterior segments (e.g., vessel changes, exudates, hemorrhages)

Ears, Nose, Mouth and Throat

- External inspection of ears and nose (e.g., overall appearance, scars, lesions, masses)
- Otoscopic examination of external auditory canals and tympanic membranes

- Assessment of hearing (e.g., whispered voice, finger rub, tuning fork)
- Inspection of nasal mucosa, septum and turbinates
- Inspection of lips, teeth and gums
- Examination of oropharynx: oral mucosa, salivary glands, hard and soft palates, tongue, tonsils and posterior pharynx

Neck

- Examination of neck (e.g., masses, overall appearance, symmetry, tracheal position, crepitus)
- Examination of thyroid (e.g., enlargement, tenderness, mass)

Respiratory

- Assessment of respiratory effort (e.g., intercostals retractions, use of accessory muscles, diaphragmatic movement)
- Percussion of chest (e.g., dullness, flatness, hyper resonance)
- Palpation of chest (e.g., tactile fremitus)
- Auscultation of lungs (e.g., breath sounds, adventitious sounds, rubs)

Cardiovascular

- Palpation of heart (e.g., location, size, thrills)
- Auscultation of heart with notation of abnormal sounds and murmurs
- Examination of
 - carotid arteries (e.g., pulse amplitude, bruits)
 - abdominal aorta (e.g., size, bruits)
 - femoral arteries (e.g., pulse amplitude, bruits)
 - pedal pulses (e.g., pulse amplitude)
 - extremities for edema and/or varicosities

20 Chapter 2 Diagnosis Coding—A Number for Every Disease**Chest (Breasts)**

- Inspection of breasts (e.g., symmetry, nipple discharge)
- Palpation of breasts and axillae (e.g., masses or lumps, tenderness)

Gastrointestinal (Abdomen)

- Examination of abdomen with notation of presence of masses or tenderness
- Examination of liver and spleen
- Examination for presence or absence of hernia
- Examination (when indicated) of anus, perineum, and rectum including sphincter tone, presence of hemorrhoids, rectal masses
- Obtain stool sample for occult blood test when indicated

Genitourinary**Male**

- Examination of the scrotal contents (e.g., hydrocele, spermatocele, tenderness of cord, testicular mass)
- Examination of the penis
- Digital rectal examination of prostate gland (e.g., size, symmetry, nodularity, tenderness)

Female

Pelvic examination (with or without specimen collection for smears and cultures) including:

- Examination of external genitalia (e.g., general appearance, hair distribution, lesions) and vagina (e.g., general appearance, estrogen effect, discharge, lesions, pelvic support, cystocele, rectocele)
- Examination of urethra (e.g., masses, tenderness, scarring)

- Examination of bladder (e.g., fullness, masses, tenderness)
- Cervix (e.g., general appearance, lesions, discharge)
- Uterus (e.g., size, contour, position, mobility, tenderness, consistency, descent, or support)
- Adnexa/parametria (e.g., masses, tenderness, organomegaly, nodularity)

Lymphatic

- Palpation of lymph nodes in two or more areas:
- Neck
- Axillae
- Groin
- Other

Musculoskeletal

- Examination of gait and station
- Inspection and/or palpation of digits and nails (e.g., clubbing, cyanosis, inflammatory conditions, petechiae, ischemia, infections, nodes)

Examination of joints, bones, and muscles of one or more of the following six areas: 1) head and neck; 2) spine, ribs, and pelvis; 3) right upper extremity; 4) left upper extremity; 5) right lower extremity; and 6) left lower extremity. The examination of a given area includes:

- Inspection and/or palpation with notation of presence of any misalignment, asymmetry, crepitation, defects, tenderness, masses, effusions
- Assessment of range of motion with notation of any pain, crepitation or contracture
- Assessment of stability with notation of any dislocation (luxation) subluxation or laxity

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- Assessment of muscle strength and tone (e.g., flaccid, cogwheel, spastic, with notation of any atrophy or abnormal movements)

Skin

- Inspection of skin and subcutaneous tissue (e.g., rashes, lesions, ulcers)
- Palpation of skin and subcutaneous tissue (e.g., induration, subcutaneous nodules, tightening)

Neurologic

- Test cranial nerves with notation of any deficit
- Examination of deep tendon reflexes with notation of any pathological reflexes (e.g., Babinski)
- Examination of sensation (e.g., by touch, pin vibration, proprioception)

Psychiatric

- Description of patient's judgment and insight

Brief assessment of mental status including:

- Orientation to time, place and person
- Recent and remote memory
- Mood and affect (e.g., depression, anxiety, agitation)

Reality Check

You are thinking “My doctor spent 15 minutes with me and didn’t do half of this stuff!” You are correct. The extent of the examination will depend on what your doctor needs to examine or measure in order to identify the cause of your sore throat. A likely scenario

would be taking your vital signs (done by the nurse), examining your throat, looking at your ears to see if your tympanic membranes are involved, listening to your chest and possibly palpating your lymph nodes. The doctor will also observe your general appearance for additional signs.

Some of the information obtained during the physical exam is noted solely by observation. The doctor can tell just by looking whether or not you have a rash that might indicate a disease related to a sore throat. Likewise, your ability to walk across the room and climb up on the exam table will provide clues to your gait. The discussion between you and your doctor will yield information about your judgment and insight, and your mental status.

Medical Decision-Making

Now that your doctor knows the history of your sore throat and has examined you, the next step in the process of arriving at a diagnosis is medical decision-making. This involves assessment of the objective data and selection of the most likely cause. It may involve additional diagnostic testing, such as a throat culture to check for bacteria. If you are a smoker or if it is goldenrod season, the doctor may suspect other causes.

In complicated cases with many presenting symptoms, the doctor may use the process of “differential diagnosis,” which is weighing the probability of one disease versus another disease as the cause of the patient’s symptoms. Sore throat can be caused by bacterial or viral infections, throat irritation or inflammation, allergic reaction, fungal infections, or even just dry air.

Your doctor will make a decision about why your throat is sore and provide a treatment plan that may involve prescription or over-the-counter medications, symptomatic treatment such as gargles, or environmental changes such as a humidifier.

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Documenting the Diagnosis

Once the decision-making process is complete, the doctor must document the diagnosis in your medical record. A complete diagnostic statement always includes:

- Site: the physical location
- Etiology: the cause of the condition

For your sore throat, a complete diagnostic statement might be:

- “Strep pharyngitis”
 - Site = pharynx
 - Etiology = streptococcal bacteria

What Number is My Diagnosis?

Now that you have a diagnosis documented in words by your doctor, it can be converted into a diagnosis code number. In Chapter 1, you learned that the International Classification of Diseases, Revision 9, Clinical Modification (ICD-9-CM) is used in the United States for diagnosis coding. It contains over 12,000 unique codes. This does not mean that each of the more than 100,000 known disease entities has a separate code. When the phrase “diagnosis code” is used, its actual meaning is “diagnosis category code.”

An example of a diagnosis category is 790.6: “Other abnormal blood chemistry.” This code category includes abnormal blood levels of cobalt, copper, iron, lithium, magnesium, or zinc. Use of 790.6 does not tell you which mineral is abnormal. Nor does it tell you whether the blood level is abnormally low or abnormally high.

A diagnosis code category is analogous to a zip code. The zip code 04558 is for Maine but it covers two towns, New Harbor and Pemaquid. With just the zip code number, it is not possible to positively identify which town is intended.

The translation process known as coding takes the words documented as a diagnosis and converts them into a diagnosis category code number. This is necessary not only for statistical purposes but also because of the variation in the naming conventions for diseases. Regional differences in medical terminology in the United States may result in several different terms for the same disease entity.

Your sore throat diagnosis, “strep pharyngitis,” is assigned to a category code number by a two-step process:

- 1) The main term or noun, “pharyngitis,” is located in the alphabetical part of ICD-9-CM, the Index to Diseases; the sub-term or adjective “strep” is searched for under “pharyngitis.”
- 2) A category code number, 034.0, is listed next to the entry for “Pharyngitis, streptococcal.” In order to assure that this

Pharyngitis (acute) (catarrhal) (gangrenous)
 (infective) (malignant) (membranous)
 (phlegmonous) (pneumococcal)
 (pseudomembranous) (simple)
 (staphylococcal) (subacute) (suppurative)
 (ulcerative) (viral) 462
 with influenza, flu, or grippe 487.1
 aphthous 074.0
 atrophic 472.1
 chronic 472.1
 chlamydial 099.51
 coxsackie virus 074.0
 diphtheritic (membranous) 032.0
 follicular 472.1
 fusospirochetal 101
 gonococcal 098.6
 granular (chronic) 472.1
 herpetic 054.79
 hypertrophic 472.1
 infectious, chronic 472.1
 influenzal 487.1
 lymphonodular, acute 074.8
 septic 034.0
 streptococcal 034.0
 tuberculous (*see also* Tuberculosis) 012.8
 vesicular 074.0

Figure 2.2 Pharyngitis index entries

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034 Streptococcal sore throat and scarlet fever	
034.0 Streptococcal sore throat	
Septic:	Streptococcal:
angina	laryngitis
sore throat	pharyngitis
	tonsillitis
Streptococcal:	
angina	
034.1 Scarlet fever	
Scarlatina	
Excludes <i>parascarlatina (057.8)</i>	

Figure 2-3 Pharyngitis tabular entries

number is correct, it is necessary to verify the number in the numerical part of ICD-9-CM, known as the Tabular List. The diagnostic terms listed under 034.0 include not only streptococcal pharyngitis, but also streptococcal laryngitis and streptococcal tonsillitis. Thus, the code number 034.0 indicates that the patient had a streptococcal infection of some portion of the throat area, but is not specific to just the pharynx.

How Hard Can This Be?

The two-step coding process described above sounds straightforward: look in the alphabetical index and then verify the number in the tabular list. Why can't this be done by a computer? In fact, most hospitals and other medical facilities now use computerized coding tools called "encoders" to facilitate the coding process. They vary from simple programs that are only replications of the coding books in a computerized format, to sophisticated interactive software that asks all of the questions necessary to arrive at the correct diagnosis category code.

For your sore throat diagnosis, the simple encoder would bring up the list of pharyngitis entries and the coding analyst would have to

select “streptococcal” from that list. The sophisticated encoder would find pharyngitis and then ask the user the questions “due to bacteria?” and then “due to which bacteria?” before selecting a code. Branching logic in the sophisticated products assures correct code selection in complex disease entities.

Why can't the computer do it all? The coding process is subject to any number of potential problems that make it essential that a coding analyst, a knowledgeable human being, be involved. Because diagnosis codes are often used to determine reimbursement (see Chapter 4), the coding process is governed by rules that must be followed by any entity submitting a claim for payment by a third party such as a government or private insurance program. Failure to follow these rules can result in the submission of a false claim, which is subject to criminal and civil penalties, including imprisonment and fines.

What can go wrong in the diagnosis coding process?

- Illegible physician handwriting

What do you think this says?



Figure 2-4 Illegible handwriting

- Illogical physician diagnosis documentation
 - “#1) Chest pain secondary to #1”
 - “Fractured ear lobe” (not anatomically possible)”
- Lack of physician documentation
- Transcription errors by typist
 - “baloney amputation” (should be below-knee amputation)
 - “liver birth” (should be live birth)

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- Content of the rest of the patient's medical record does not support the diagnosis documented
- Lack of specificity
“anemia” (There are several hundred different types of anemia)

Each of these issues must be resolved before an accurate diagnosis code can be assigned.

What are the Rules?

The rules for diagnosis coding in the United States are developed and approved by the Cooperating Parties for ICD-9-CM, which include the federal Centers for Medicare and Medicaid Services (CMS), the National Center for Health Statistics, the American Hospital Association, and the American Health Information Management Association. Both ICD-9-CM and the Official Guidelines for Coding and Reporting are in the public domain and may be accessed at no charge on the internet or via public document depository library services.²

The rules are 54 pages and consist of:

- Conventions and general coding guidelines
- Chapter-specific guidelines
- Selection of principal diagnosis for inpatients
- Reporting additional diagnoses for inpatients
- Diagnostic coding and reporting guidelines for outpatient services

In addition to the official rules, federal and state government programs such as Medicare and Medicaid promulgate regulations intended to define appropriate code usage or add the weight of law to the guidelines. An example is the Medicare transmittal defining

for its contractors the appropriate rules for ICD-9-CM coding for diagnostic tests.³ This transmittal was issued because of concerns about contractors in different geographic locations inconsistently interpreting the official guidelines.

General Coding Guidelines

These guidelines tell coding analysts the basic information they need to code correctly, based on physician documentation.

- A. Use both the alphabetic index and the tabular list when locating and assigning a code.
- B. Locate each term in the alphabetic index and verify the code selected in the tabular list. Read and be guided by instructional notations.
- C. Valid diagnosis codes may have 3, 4, or 5 digits. A 3- or 4-digit code may only be used if it is not further subdivided.

Example: “481 Pneumococcal pneumonia” may be used because it is not further subdivided. “482 Other bacterial pneumonia” may not be used because it is further subdivided into 4 and 5 digit codes.

- D. Codes that describe symptoms and signs, as opposed to diagnoses, are acceptable if a definitive diagnosis has not been established by the physician.

Example: 780.2 Syncope (fainting) is a symptom code. It may be used if the physician does not identify and document a diagnosis responsible for the fainting.

- E. Signs and symptoms that are an integral part of a disease process should not be assigned as additional codes.

Example: Fluid overload is integral to congestive heart failure and would not be coded separately.

- F. Signs and symptoms that may not be associated routinely with a disease process should be coded when present.

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G. Some single conditions may require more than one code for a full description. Generally, one code is for the etiology and one for the manifestation of the disease. Instructions, such as “code first,” “use additional code,” “code, if applicable, any causal condition first,” guide the coder. Additional situations requiring more than one code are related to late effects, complications and obstetrical cases.

H. When a condition is described as both acute and chronic, code both.

Example: Acute sinusitis is 461.9.

Chronic sinusitis is 473.9.

Both codes would be used for “Acute and chronic sinusitis.”

I. Combination codes are single codes used for a combination of two diagnoses, or a diagnosis with an associated manifestation or complication. Do not use multiple codes if a combination code describes all of the elements.

Example: Acute cholecystitis is 575.0.

Chronic cholecystitis is 575.11.

Acute and chronic cholecystitis is 575.12.

Only 575.12 would be used to describe both.

J. A late effect is the residual effect after the acute phase of an illness or injury has terminated. There is no time limit as to when a late effect code can be used. The residual condition is coded first.

Example: “907.2 Late effect of spinal cord injury,” could be used as an additional code if a patient was being seen for neurogenic bladder.

Abbreviations present in ICD-9-CM are:

- NEC Not elsewhere classifiable. Detail in medical record is specific, but a specific code is not available. Same as “other specified.”

What is the Structure of the Diagnosis Codes? 31

- **NOS** Not otherwise specified. Same as unspecified. Information in medical record is not sufficient to assign a more specific code.
- **X** Used as a placeholder in codes where additional information is needed to assign a specific 4th or 5th digit.

Notes used in ICD-9-CM are:

Includes: Defines or gives examples of the content of the category.

Excludes: Terms excluded are to be coded elsewhere. Used in the case of logical inconsistencies such as a congenital versus acquired condition.

Inclusion terms: Synonyms of the code title. May be supplemented by additional terms found only in the alphabetical index.

What is the Structure of the Diagnosis Codes?

How is the diagnosis system set up to handle the thousands of coding categories in a logical fashion? The 17 chapters in the Classification of Diseases and Injuries are divided along two major schemes:

- Anatomic system chapters, such as Diseases of the Digestive System, or
- Disease or condition categories, such as Neoplasms, where all neoplasms are found, regardless of anatomic location.

Chapter Title	Code Range
Infectious and Parasitic Diseases	001.0–139.8
Neoplasms	140.0–239.9
Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders	240.0–279.9
Diseases of the Blood and Blood-Forming Organs	280.0–289.9
Mental Disorders	290.0–319

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Chapter Title	Code Range
Nervous System and Sense Organs	320.0–389.9
Diseases of the Circulatory System	390–459.9
Diseases of the Respiratory System	460–519.9
Diseases of the Digestive System	520.0–579.9
Diseases of the Genitourinary System	580.0–629.9
Complications of Pregnancy, Childbirth and the Puerperium	630–677
Diseases of the Skin and Subcutaneous Tissue	680.0–709.9
Diseases of the Musculoskeletal System and Connective Tissue	710.0–739.9
Congenital Anomalies	740.0–759.9
Certain Conditions Originating in the Perinatal Period	760.0–779.9
Symptoms, Signs and Ill-Defined Conditions	780.01–799.9
Injury and Poisoning	800.00–999.9

Within each ICD-9-CM chapter and section, there are categories that are arranged in mostly logical fashion, either by body site or by the cause or etiology. Subcategories are arranged the same way, with the last subcategory generally being used for “other” diagnoses that may be nonspecific. See Appendix A for a list of all ICD-9-CM categories. You may use this list to get a general idea of where your diagnoses occur in the coding scheme.

Two additional classifications are used in diagnosis coding to indicate situations beyond the disease itself:

- **Supplementary Classification of Factors Influencing Health Status and Contact with Health Services (V codes):** Used in situations where a person who does not have an illness or injury utilizes health services, such as a vaccination. Code range is V01.0 through V83.8.
- **Supplementary Classification of External Causes of Injury and Poisoning (E codes):** Used to indicate the causes of accidents and intentional acts resulting in injury. For example, a burn caused by a firecracker would have an E code for “accident caused by explosive material, fireworks.” Code range is E800.0 through E999.1.

Which Diagnosis is Listed First?

The sequencing of diagnosis codes is intimately linked to reimbursement (see Chapter 4) and thus is also defined by official rules.

Inpatient

The Uniform Hospital Discharge Data Set or UHDDS applies to diagnosis sequencing for inpatient, short-term, acute care, and long-term care hospital records. It has been in use since 1985 and defines the principal diagnosis as “that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.”⁴ According to this definition, if you are admitted to the hospital because of chest pain, but fall out of bed and break your hip, the chest pain will still be your principal diagnosis, even if you end up staying an extra two weeks to have your hip repaired.

Sequencing rules for inpatients are:

- Do not use a symptom or sign as the principal diagnosis if a definitive diagnosis has been established.
- If there are two or more interrelated conditions that could each meet the definition of principal diagnosis, either may be sequenced first.
- Comparative/contrasting conditions documented as “either/or” are sequenced according to the circumstances of the admission.
- If a symptom is followed by comparative/contrasting conditions, all are coded, with the symptom first.
- Even if the original treatment plan is not carried out, follow the definition for principal diagnosis.
- If admission is for treatment of a complication, the complication code is sequenced first.
- If the diagnosis is documented as “probable,” “suspected,” “likely,” “questionable,” “rule out,” the condition is coded as if it existed.

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Note: the last rule varies significantly from that for outpatients (see below). The UHDDS Guidelines are found in Appendix H.

Outpatient and Physician Office

Because the UHDDS does not apply to outpatients, the selection of the first diagnosis is governed by the ICD-9-CM Official Guidelines. The “first-listed diagnosis” is defined as “the diagnosis, condition, problem, or other reason for encounter/visit shown in the medical record to be chiefly responsible for the services provided.”⁵ Additional rules for outpatient sequencing are:

- Do not code diagnoses documented as “probable,” “suspected,” “questionable,” “rule out,” or “working diagnosis.” Rather, code the condition to the highest degree of certainty for that encounter/visit, such as signs, symptoms, abnormal test results, or other reason for the visit. Note: This rule for outpatient sequencing differs significantly from the last rule noted above for inpatients.
- For patients receiving diagnostic services only, sequence first the diagnosis, condition, problem, or other reason shown to be responsible for the service.
- For patients receiving therapeutic services only, code first the diagnosis responsible for the service. An exception to this rule occurs if the encounter is for chemotherapy, radiation therapy, or rehab, in which case the V code for the service is listed first and the diagnosis second.
- For pre-op exams, use the appropriate V code, followed by the condition necessitating the surgery.
- For ambulatory surgery, use the diagnosis for which the surgery was performed. If the post-op diagnosis differs from the pre-op, select the post-op for coding.
- For routine prenatal visits when no complications are present, use the V codes for supervision of pregnancy.

What's in Each Diagnosis Chapter?

As each ICD-9-CM diagnosis chapter is discussed, any applicable coding rules from the Official Guidelines will be included.

Chapter 1—Infectious and Parasitic Diseases (001-139)

The diseases in this chapter are those considered to be communicable, either from human to human or from another host, such as a mosquito, to humans. Parasites are organisms that live in or feed on humans, such as worms. This chapter is the realm of public health departments across the nation that monitor and try to prevent outbreaks of communicable diseases.

The structure of this chapter is based on the organism causing the condition to be coded, but can also be grouped according to the primary body system affected. An example is the intestinal infectious diseases, a section that includes cholera, typhoid, salmonella, shigellosis, other bacterial food poisoning, amebiasis, other protozoal intestinal diseases, intestinal infections due to other organisms, and ill-defined intestinal infections.

As new organisms are identified and new outbreaks of infectious diseases occur, additional codes are added frequently to this chapter. Some of the conditions in this chapter represent diseases thought to be eradicated, such as smallpox. The last known case was in 1977. However, small quantities of the virus exist in research laboratories, and the potential for accidental exposure is still present, so it is necessary to retain the code for possible future use. For some conditions, vaccines have been developed for prevention but diseases occur in other age groups who have not been vaccinated. An example is whooping cough in adults.

In some coding categories, lots of detailed codes are available but the usual medical record documentation is too scanty to allow their

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use. An example is tuberculosis, where fifth digits are based on the method by which the mycobacterium infection was confirmed.

Specific official coding guidelines for conditions in this chapter include:

HIV (Human Immunodeficiency Virus Infections)

Reason for Encounter	Use Code
Treatment of HIV-related condition, AIDS	042
Treatment of unrelated condition	Code for condition plus 042
Patient is “HIV-positive” without symptoms	V08
Inconclusive HIV test, no diagnosis	795.71
HIV infection in pregnancy	647.6X plus 042
Asymptomatic HIV during pregnancy	647.6X plus V08
HIV testing	V73.89
Receive results of HIV testing	V65.44

The physician’s diagnostic statement that the patient is HIV positive or has an HIV-related illness is sufficient to code. Current documentation of positive serology or culture is not required.

Septicemia, Systemic Inflammatory Response Syndrome (SIRS) Sepsis, Severe Sepsis and Septic Shock

Reason for Encounter	Use Code
Urosepsis (urinary tract infection)	599.0 plus code for organism if known
Bacteremia (bacteria in blood)	790.7
Septicemia (systemic disease associated with presence of microorganisms in blood)	038.0–038.9
Sepsis (SIRS due to infection)	038.9 plus 995.91
Severe sepsis (SIRS due to infection that advances to organ dysfunction)	038.X plus 995.92 or 995.94 plus codes for organ dysfunctions
SIRS (systemic inflammatory response syndrome—clinical response to insult, infection, or trauma, includes systemic inflammation, temp change, rapid heart rate and respiration, elevated white count)	995.9X used as a secondary diagnosis
Septic shock (septicemia with shock)	Code for initiating trauma or infection, plus 995.92 or 995.94 plus 785.52

Either the term sepsis or SIRS must be documented to assign a code from subcategory 995.9.

Late Effects of Infectious or Parasitic Diseases

Reason for Encounter	Use Code
Late effect of tuberculosis	Code for residual condition plus 137.X
Late effect of polio (this includes post-polio syndrome)	Code for residual condition plus 138
Late effect of other infectious or parasitic disease	Code for residual condition plus 139.X

Related to the infectious disease codes are the V09 codes for infection with drug-resistant organisms, which would be used as additional codes secondary to the infection code.

V Codes Related to Infectious Diseases

Reason for Encounter	Use Code
Exposure to a communicable disease	V01.X
Carrier of an infectious disease	V02.XX
Need for vaccination	V03.XX–V06.X
Need for isolation	V07.0
Screening for infectious diseases	V73.XX–V75.9
Lab work for suspected disease	V71.9

Chapter 2—Neoplasms (140-239)

The word “neoplasm” means new growth. From a coding perspective, there are four types of neoplasms:

- Malignant

In common usage, the term “cancer” is used to describe a malignant neoplasm. These new growths are usually invasive, spreading to the lymph system and to distant sites in the body (metastases).

- Primary—malignant neoplasm in the site where it originated
- Secondary—malignant neoplasm in the site it has metastasized to, or spread to

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- **In Situ**—carcinoma cells that are still confined to the original site and are undergoing malignant changes
- **Benign**
Although benign neoplasms do not spread to other sites, their growth may cause problems due to size, putting extra pressure on nearby structures.
- **Uncertain behavior**
For some tumors, a decision cannot be made about whether they are benign or malignant, even upon pathology examination.
- **Unspecified nature**
This category is for neoplasm documentation that is not specific enough to determine the behavior.

Specific official coding guidelines for conditions in this chapter include:

Neoplasms

Reason for Encounter	Use Code
Treatment of the primary malignancy (not chemo or radiation)	Code for malignant neoplasm of primary site
Treatment of a secondary (metastatic) site only	Code for malignant neoplasm of secondary site
Treatment of anemia associated with malignancy	Code for anemia plus code for malignancy
Treatment of dehydration due to malignancy or therapy	Code for dehydration plus code for malignancy
Treatment of complication of surgery for an intestinal malignancy	Code for complication
Chemotherapy	V58.1 plus code for malignancy
Radiation therapy	V58.0 plus code for malignancy
Follow-up after cancer treatment, with no evidence of recurrence	V67.0 plus V10.XX code for history of malignant neoplasm
Follow-up with evidence of recurrence	Code for neoplasm
Prophylactic organ removal to prevent occurrence of cancer	V50.4X

Care must be taken when the term “metastatic” is used. It can mean either a primary neoplasm that is spreading, such as a laryngeal tumor that has spread a cervical lymph node. However, “metastatic” can also be documented by the physician to refer to the metastatic site, such as “metastatic cancer, lymph node.”

In assigning neoplasm codes, it is essentially that the search begin by looking for the morphologic type (name such as carcinoma, glioma, leiomyoma). This is necessary in order to learn whether the neoplasm is malignant, benign or other, Once this information is in hand, the search moves to the anatomic site.

Chapter 3—Endocrine, Nutritional, and Metabolic Immunity (240-279)

Endocrine glands secrete hormones directly into the bloodstream. The hormones travel to target organs and are often involved with metabolism, which is the chemical process taking place in living tissues, necessary for the maintenance of the organism. A disease state in an endocrine gland can affect not only the target organ but also related systems. This is demonstrated clearly in the complications of diabetes, involving the kidneys, eyes, nerves, and peripheral vascular system.

The endocrine diseases are organized according to the involved endocrine gland: thyroid, pancreas, parathyroid, pituitary, thymus, adrenal, ovarian, and testicular. The nutritional deficiencies are arranged with malnutrition first, followed by the various vitamin and mineral deficiencies. The metabolic disorders follow the substance being metabolized, such as carbohydrates, proteins, lipids. Additional codes for obesity and immunity deficiencies round out the chapter.

There are no official coding guidelines for this chapter of ICD-9-CM. However, there are concepts related to diabetes that affect coding:

40 Chapter 2 Diagnosis Coding—A Number for Every Disease**Diabetes Mellitus**

Reason for Encounter	Use Code
Treatment of Type I diabetes (absolute deficiency of insulin, juvenile onset). Patients with Type I diabetes always require insulin. As of 10/04, the term “insulin-dependent” is no longer used for coding purposes.	250.X1
Treatment of Type II diabetes (resistance to the effects of insulin, adult onset). Patients with Type II diabetes may or may not require insulin. As of 10/04 the term “non-insulin dependent” is no longer used for coding purposes.	250.X0
Complications of diabetes, such as retinopathy, nephropathy, ketoacidosis, coma, ulcer	250.XX depending on the complication and the type of DM plus additional code for the complication
Dietary counseling	V65.3 plus code for diabetes
Diabetes complicating pregnancy	648.0X
Gestational diabetes	648.8X
Infant of a diabetic mother syndrome	775.0
Neonatal diabetes	775.1
Abnormal glucose tolerance test	790.2

Physician documentation of the type of diabetes is essential. It cannot be assumed that all patients who are on insulin are Type I.

Another problematic diagnosis category is thyroid disorders. If your physician does not enunciate clearly or spell the words when dictating, you could end up with the wrong disease. “Hypo-” and “hyper-” thyroidism sound very similar.

Chapter 4—Diseases of the Blood and Blood-Forming Organs (280-289)

Anemia accounts for the largest portion of this chapter. In order to classify it correctly, detailed documentation is needed. There are 35 different code categories for anemia. Deficiency anemias can be

due to blood loss, malabsorption of nutrients, or nutritional deficiencies. Hemolytic anemias, in which red cells are destroyed at an abnormal rate, can be hereditary or acquired. Aplastic anemia occurs when the bone marrow fails to produce the normal amount of blood components. The other major part of this chapter is coagulation defects—when the blood does not clot properly. The most well-known condition of this type is hemophilia. Diseases of the white cells, with the exception of leukemia, are also in this chapter. Leukemia is in the neoplasms chapter.

Since the lymph system and the spleen are also related to blood, they are included in this chapter.

There are no official coding guidelines related to this chapter.

V Codes Related to Blood Disorders

Reason for Encounter	Use Code
Blood donor	V59.0X
Blood-alcohol test	V70.4
Routine lab work on blood	V72.6
Lab work for suspected disorder	V71.9
Hemophilia genetic carrier	V83.0X
Pre-op lab work	V72.83 plus code for condition requiring surgery

Chapter 5—Mental Disorders (290-319)

The American Psychiatric Association has defined a mental disorder as “a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (a painful symptom) or disability (impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain or disability.”⁶ The Association’s *Diagnostic and Statistical Manual of Mental Disorders, 4th edition* (known as DSM-IV) is a tool to assist clinicians in diagnosis of mental disorders. It consists of an index of mental illnesses

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accompanied by listings of possible symptoms and diagnostic criteria. This classification is not used for healthcare billing purposes, although almost all of the code numbers in this scheme agree with those in ICD-9-CM.

More than other specialties, psychiatry is likely to have codable services that are rendered by providers other than physicians. Clinical psychologists, counselors, social workers, and therapists participate in services for psychiatric patients. Psychiatry is also heavily involved with the legal system because of the need for involuntary treatment of some patients and the use of mental illness as a defense in legal cases.

This chapter is divided into three main sections:

- Psychoses (290-299)
- Neurotic Disorders, Personality Disorders, and other Nonpsychotic Mental Disorders (300-316)
- Mental Retardation (317-319)

As life expectancy increases and the aging population expands, the incidence of organic psychotic conditions (290-294) increases. These are physical conditions that cause a decrease in mental function. Psychosis is a loss of contact with reality, typically including delusions (false ideas about what is taking place or who one is) and hallucinations (seeing or hearing things that aren't there). The organic psychoses include senile dementias, alcoholic psychoses, drug-related psychoses, and other organic mental disorders such as acute confusional state. Other psychoses not defined as organic include schizophrenia, affective disorders, paranoid states, and childhood psychoses.

The nonpsychotic mental disorders include personality disorders, neuroses, sexual disorders, alcohol and drug abuse and dependence, sleep disorders, eating disorders, stress and adjustment reactions, conduct disorders, developmental delays, and childhood emotional

disorders. Nonpsychotic mental disorders due to organic brain damage are also in this section.

Mental retardation has its own section; the codes are based on the intellectual quotient (IQ) of the patient.

There are no official coding guidelines for this chapter. Patients with mental disorders may be seen for services under a number of circumstances:

Mental Disorders

Reason for Encounter	Use Code
Treatment of mental illness	Code for mental illness
Treatment of mental illness associated with a physical condition	Code for mental illness plus code for the associated physical condition
Treatment of mental illness due to an underlying disease	Code for the underlying disease plus code for the mental illness
Counseling for marital, partner, or parent-child problems (without psychiatric diagnosis)	V61.1X-V61.3
Counseling for other psychosocial circumstances, such as work environment, legal issues, refusal of treatment (without psychiatric diagnosis)	V62.X
Substance abuse counseling	V65.42
Follow-up exam following completion of psychotherapy	V67.3
Lifestyle issues such as gambling, high-risk sexual behavior	V69.2-V69.9
Exam for medico-legal reasons	V70.4
Observation for suspected mental condition	V71.0X
Pre-operative psychological exam	V72.85 plus code for condition requiring surgery

Chapter 6—Nervous System and Sense Organs (320-389)

The nervous system is responsible for sensory and motor activities, for behavior, and for regulating the internal organs. Sensory functions are those of vision, smell, hearing, taste, touch and proprioception (the body's awareness of itself). Motor functions are those of movements, such as swallowing and heartbeat.

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Coding nervous systems conditions requires knowledge of the location or site of the condition. The central nervous system is the brain and the spinal cord. The peripheral nervous system includes all other nervous system elements, such as the facial nerves, cranial nerves, and nerves in the extremities.

Central nervous system diseases include infections, such as encephalitis and meningitis, and degenerative disorders, such as Alzheimer's disease, Parkinson's disease, and other types of tremor. Some of these diseases are hereditary and some are acquired. Multiple sclerosis, cerebral palsy, migraine, and epilepsy are other CNS conditions.

Hemiplegia (paralysis of one side of the body) can be a current condition or the residual effect of a previous occurrence, such as a stroke. A fifth digit is used with codes for hemiplegia to indicate whether the patient's dominant or nondominant side is affected.

The peripheral nervous system is involved in many common conditions, such as carpal tunnel syndrome, peripheral neuropathy, Bell's palsy, and hereditary conditions such as muscular dystrophy.

The section on eye disorders includes not only codes for all types of eye diseases, but also a method for coding visual impairment such as low vision or blindness. A defined scale of visual acuity levels is used to define the level of impairment. Although codes exist in the ear section for hearing loss, it is classified or coded based only on the type of loss and not on the degree of loss.

Cataracts and glaucoma are common in aging populations. Glaucoma is a rise in the pressure inside the eye, which can restrict blood flow. Most types of glaucoma are due to blockage of the flow of aqueous, the fluid inside the eye. Cataracts occur most often in the elderly, but can also occur in other age groups, due to trauma, drugs, radiation, and other causes.

Otitis (ear inflammation or infection) is one of the most common childhood illnesses. There are 21 different codes for acute and chronic forms of otitis media or middle ear infection. The physician must document very specifically to assure correct code assignment. There are no official coding guidelines for the section on nervous system and sense organ diseases. Patients may need health services for a variety of reasons:

Nervous System and Sense Organs

Reason for Encounter	Use Code
Treatment of a nervous system or sense organ condition	Code for the condition
Treatment of a nervous system or sense organ condition associated with another condition	Code for the nervous/sensory condition plus additional code for the other condition
Treatment of a nervous system or sense organ condition due to an underlying disease	Code for the underlying disease plus code for the nervous/sensory condition
Fitting or adjustment of artificial eye prosthesis	V52.2
Fitting or adjustment of glasses or contact lenses	V53.1
Fitting or adjustment of hearing aid	V53.2
Fitting or adjustment of devices related to nervous system, such as neuropacer	V53.0X
Rehab	V57.1 Physical therapy V57.2X Occupational or vocational therapy V57.4 Orthoptics plus code for the underlying condition being treated
Surgery follow-up	V67.00
Routine eye exam	V72.0
Routine hearing exam	V72.1

Chapter 7—Diseases of the Circulatory System (390-459)

The circulatory system covers the heart, arteries, veins, and capillaries. Its purpose is to obtain oxygen from the lungs, distribute it to tissues via blood flow, and release carbon dioxide, the waste

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product of the body's metabolism or energy consumption. The heart is the pump that makes the circulatory system work.

The lymph system, which produces and distributes immune cells, is also included in this chapter. Congenital heart conditions are found in Chapter 14, while circulatory conditions related to pregnancy are in Chapter 11.

Interestingly, this chapter starts with an infectious disease. Rheumatic fever is a febrile inflammatory condition that may occur after infection with group A strep. It can cause arthritis and other joint symptoms, but its primary complication is carditis and damage to the heart, particularly the valves.

Hypertension, or high blood pressure, is defined as blood pressure consistently greater than 140 systolic or 90 diastolic. Systolic is the top number in your blood pressure and represents the pressure when the heart beats. Diastolic is the bottom number and represents the pressure when the heart rests. Hypertension can involve the heart and the kidney if not treated successfully.

Heart attack, or myocardial infarction, is another group of codes in this chapter. It is a form of ischemic heart disease, in which the supply of blood to the heart is blocked, usually due to arteriosclerosis.

Varicose veins, thrombophlebitis, hemorrhoids, and deep vein thrombosis are the most commonly seen conditions of the arteries and veins.

This chapter has a number of official coding rules:

Circulatory System

Reason for Encounter	Use Code
Hypertension, essential or NOS	401.X Do not use codes for benign or malignant unless specified
Hypertension with heart disease—causal relationship stated (due to hypertension) or implied (hypertensive)	402.XX Use additional code from 428 if patient has heart failure

Circulatory System (continued)

Reason for Encounter	Use Code
Hypertension with heart disease—causal relationship not documented	Code heart disease and hypertension separately
Hypertensive renal disease with chronic renal failure	403.XX Causal statement not required
Hypertensive heart and renal disease—causal statement for heart disease present	404.XX Use an additional code for 428 if the patient has heart failure
Hypertensive cerebrovascular disease	Code from 430-438 plus hypertension code
Hypertensive retinopathy	362.11 plus code from 401-405
Secondary hypertension	Code for underlying cause and code from 405 for hypertension
Transient hypertension, or elevated blood pressure without hypertension diagnosis	796.2
Hypertension stated as controlled or uncontrolled	Appropriate code from 401-405
Late effect of cerebrovascular disease, such as neurological deficits	Code for deficit plus 438

Because diagnosis sequencing is related to reimbursement, CMS peer review organizations have developed additional guidelines for the circulatory chapter:

Reason for Encounter	Sequence
Angina due to coronary artery disease	CAD Code for angina
Unstable angina resulting in acute MI	MI No code for angina
Acute MI, postinfarction angina	MI Code for angina
Chest pain, no cause identified	Chest pain code
Chest pain, cause identified	Code for cause
Congestive heart failure with fluid overload, dilated cardiomyopathy, pleural effusion, or respiratory failure	CHF
Cerebrovascular accident (stroke) with positive diagnostic tests and symptoms still occurring after 24 hours	CVA—436
Presentation as stroke / CVA but diagnostic tests are negative and symptoms are resolved within 24 hours	TIA (transient ischemic attack) 435.9

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Patients with circulatory disorders may also be seen for other reasons:

Circulatory System

Reason for Encounter	Use Code
Fitting or adjustment of cardiac device such as pacemaker	V53.3X
Cardiac rehab	V57.89
Aftercare following surgery	V58.73
Therapeutic drug monitoring (anticoagulant use)	V58.83 plus V58.61
Surgical follow-up	V67.00
Pre-operative cardiovascular exam	V72.81 plus code for condition requiring surgery
Observation for suspected cardiovascular disease	V71.1

Chapter 8—Diseases of the Respiratory System (460-519)

Starting at the top, the respiratory system consists of the nasal cavity and sinuses, the mouth, throat (pharynx and larynx), bronchi, and lungs. Its function is to bring in air, containing oxygen, and to release carbon dioxide. The oxygen passes into the blood in an exchange process that takes place in the alveoli of the lungs; carbon dioxide passes from the blood into the lungs and is exhaled.

Code categories in this chapter are arranged starting with upper system infections, other upper diseases, pneumonia, obstructive diseases, lung diseases due to external agents, and other respiratory diseases.

The categories for lung diseases due to external agents read like a list of poor labor conditions from American history: coal workers' pneumoconiosis (black lung disease), mushroom workers' lung, farmers' lung, cheese washers' lung, bauxite fibrosis, chemical bronchitis.

There are no official coding guidelines for this chapter, however there are sequencing guidelines developed by Medicare peer review organizations because diagnosis coding affects reimbursement.

Respiratory System

Reason for Encounter	Sequence
Pneumonia, unspecified cause	486
Pneumonia, known cause. Physician must document bacterial or viral cause.	480.X–483.X
Pneumonia in infectious disease classified elsewhere	Code for under-lying disease, then 484.1–484.8
Lobar pneumonia. The same term can be used for two different diseases.	486 for site (lobe) 481 for pneumococcal (lobar is synonym)
Chronic obstructive pulmonary disease (COPD) exacerbation, cause not identified	491.21
COPD with respiratory distress or insufficiency	COPD code only
COPD with respiratory failure	Respiratory failure code
Respiratory failure due to respiratory cause	Respiratory failure
Respiratory failure due to nonrespiratory condition, chronic	Respiratory failure
Respiratory failure due to nonrespiratory condition, acute or acute exacerbation	Acute non-respiratory condition
Asthma—The physician must document cause and whether exacerbation is present.	493.0X–493.9X
Pleural effusion with CHF	CHF. Use pleural effusion as secondary code if drained.
Pleural effusion with other cause	Sequence according to conditions of admission

Patients with pulmonary diseases may be seen for other reasons:

Reason for Encounter	Use Code
Pneumovax vaccination	V03.82
Desensitization to allergens	V07.1
Attention to tracheostomy	V55.0
Aftercare following surgery to respiratory system	V58.74
Therapeutic drug monitoring	V58.83
Routine chest x-ray	V72.6
Pre-op respiratory exam	V72.82 plus code for condition requiring surgery

50 Chapter 2 Diagnosis Coding—A Number for Every Disease**Chapter 9—Diseases of the Digestive System (520-579)**

The length of the average digestive system is an amazing 27 or 28 feet! The basic function of this system is to prepare food for absorption, by mechanical and chemical methods. In mechanical digestion, food is ground, torn, chewed, shaken, and mixed with saliva and stomach juices. In the small intestine, the dissolved food particles are mixed with enzymes and are absorbed through the lining of the intestine into the intestinal-hepatic portal venous system where nutrients move into the bloodstream and are delivered to the rest of the body.

Coding categories for the digestive system are arranged according to the physical site of the disease: teeth, gums, jaw, salivary glands, oral soft tissues, tongue, esophagus, stomach, duodenum, appendix, abdominal cavity, intestine, colon, rectum, anus, liver, gallbladder, and pancreas. The pancreas serves an endocrine function by producing insulin, but it is also considered a digestive organ because it secretes enzymes that aid in digestion of proteins, fats, and carbohydrates.

Gastrointestinal infections that are contagious are located in the infectious disease chapter, while gastrointestinal neoplasms are located in that chapter.

There are no official coding guidelines for the digestive system disease chapter. Patients with these diseases may be seen for:

Digestive System

Reason for Encounter	Use Code
Attention to gastrostomy	V55.1
Attention to ileostomy	V55.2
Attention to colostomy	V55.3
Attention to other artificial opening of gastrointestinal tract	V55.4
Aftercare following surgery of the teeth, oral cavity, and digestive system	V58.75
Surgery follow-up	V67.00

Digestive System (continued)

Reason for Encounter	Use Code
Screening for malignant neoplasm, rectum	V76.41
Screening for malignant neoplasm, intestine	V76.50
Screening for malignant neoplasm, colon	V76.51
Screening for malignant neoplasm, small intestine	V76.52

Because reimbursement is tied to diagnosis sequencing, some of the CMS peer review organizations have developed additional guidelines.

One of the common conditions in the gastrointestinal (GI) tract is bleeding. If the cause of the bleeding is identified, the code for that condition, with hemorrhage, is used. A code from category 578, gastrointestinal hemorrhage, is used only when the bleeding is documented but no bleeding site or cause is identified. The most common causes of upper GI bleeding are ulcers and diverticular disease.

Chapter 10—Diseases of the Genitourinary System (580-629)

The urinary portion of this system is comprised of the kidneys, ureters (tubes connecting the kidneys to the bladder), bladder, urethra (tube from bladder to the outside). Its function is to eliminate waste products and also to maintain chemical and body water balances. If it is a hot day and you do not drink enough water, the volume of your urine will decrease as the kidneys work to maintain the appropriate internal balance.

The genital portion of this system includes not only what is normally thought of as genitalia, but also the breasts. The male genital portion covers the prostate, penis, testes, spermatic cord, and seminal vesicles. The female portion includes the ovaries, fallopian tubes, uterus, vagina, cervix, clitoris, labia, and vulva. Reproduction and preservation of the human species are the tasks of these systems.

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Kidney failure may lead to the need for the patient to undergo dialysis. In this procedure, a dialysis machine serves as a substitute for the kidney, filtering out salts and urea wastes into a solution that can be discarded.

The presence of stones, or calculi, can occur in the kidney, ureters, bladder, or urethra. Often painful, these stones are usually formed of calcium or uric acid. They can prevent the passage of urine if located in the wrong spot. The flow of urine can also be affected by conditions in the prostate because the urethra passes through the prostate on its way to the penis. Enlargement of the prostate is found in more than 40% of men over the age of 70. For coding purposes, the cause of the hypertrophy must be specified.

Breast disorders, with the exception of neoplasms, are also located in this chapter. They are not restricted to use in female patients. Breast neoplasms are found in ICD-9-CM Chapter 2.

Coding for female genital tract conditions is organized along anatomical divisions, with a few functional sections at the end of the chapter addressing menstrual disorders, menopause and infertility.

There are no official coding guidelines for this chapter. However, patients may be seen for these conditions for a variety of reasons:

Genitourinary System

Reason for Encounter	Use Code
Contact or exposure to venereal diseases	V01.6
Contact or exposure to HIV	V01.7
Exposure to potentially hazardous body fluids	V15.85
Sterilization	V25.2
Prescription of oral contraceptives	V25.0
Fitting of diaphragm	V25.02
Insertion of IUD	V25.1
Reversal of sterilization	V26.0
Artificial insemination	V26.1

Genitourinary System (continued)

Reason for Encounter	Use Code
Fertility testing	V26.21
Prophylactic organ removal	V50.41 Breast V50.42 Ovary V50.49 Testes
Breast augmentation or reduction	V50.1
Routine circumcision	V50.2
Fitting or adjustment, urinary catheter	V53.6
Renal dialysis	V56.0
Peritoneal dialysis	V56.8
Aftercare following surgery to genitourinary system	V58.76
Kidney donor	V59.4
HIV counseling	V65.44
Sexually transmitted disease counseling	V65.45
Surgery follow-up	V67.00
Paternity testing	V60.4
Observation following alleged rape	V71.5
Routine GYN exam	V72.3
Screening mammogram	V76.11
Screening breast exam	V76.19
Screening for malignant neoplasm	V76.47 vagina V76.2 cervix V76.44 prostate V76.45 testis V76.46 ovary
Dietary counseling	V65.3

Chapter 11—Complications of Pregnancy, Childbirth, and the Puerperium (630-677)

This chapter is the most complex within ICD-9-CM in terms of the official guidelines. It contains codes for many conditions that are classified elsewhere, but which are coded within this chapter if the patient is pregnant or has delivered and is within the puerperium, defined as 42 days after delivery.

In addition to pregnancy, abortion is also part of this chapter, since it is considered an outcome of pregnancy, whether spontaneous,

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legally induced, illegally induced, or unspecified. Although the chapter title references “complications,” normal pregnancies are also in this chapter.

Many of the codes in this chapter utilize fifth digits that indicate the outcome or the nature of the condition or complication:

- 0 = unspecified as to episode of care or not applicable
- 1 = delivered this episode, with or without mention of antepartum complication
- 2 = delivered this episode, with mention of postpartum complication
- 3 = antepartum condition or complication
- 4 = postpartum condition or complication

The guidelines for this chapter are extensive:

Pregnancy, Childbirth, and the Puerperium

Reason for Encounter	Use Code
Other condition, pregnancy is incidental	Code for other condition plus V22.2
Prenatal outpatient visits for patients with high-risk pregnancies	Code from category V23
Prenatal visit, routine, no complications present	V22. 0 or V22.1 Do not use another chapter 11 code with these
Normal vaginal delivery (full term, single healthy infant, no complications during delivery) (Inpatient)	650 plus V27.0 for outcome of delivery Do not use any other chapter 11 code with 650
Other Delivery (Inpatient)	Main circumstances or complication of delivery*
C-section delivery (Inpatient)	Reason a C-section was performed*
Complication of pregnancy but no delivery occurs (Inpatient)	Code correspond-in to the principal complication of the pregnancy*
*HIV related illness during pregnancy	647.6X plus 042 plus code for the HIV related illness
Fetal condition affecting the management of the mother	Code from 655 or 656 categories
Delivery outside hospital, admitted for routine postpartum care, no complications	V24.0
Late effect of complication of pregnancy, childbirth or the puerperium	Sequela code plus 677

Abortion coding includes fifth digits that indicate the stage of the abortion:

- 0 = unspecified stage
- 1 = incomplete (all products of conception have not been expelled from the uterus)
- 2 = complete (all products of conception have been expelled from the uterus prior to the episode of care)

The following official coding guidelines relate to abortion:

Abortion

Reason for Encounter	Use Code
Treatment of spontaneous abortion (no instrumentation or chemical intervention)	Category 634
Legally induced abortion (elective, termination of pregnancy)	Category 635
Treatment after illegally induced abortion (not performed in accordance with state law)	Category 636
Treatment after unspecified abortion	Category 637
Failed attempted abortion (elective abortion procedure has failed to evacuate the fetus and the patient is still pregnant)	Category 638
Complications following abortion, ectopic and molar pregnancies	Category 639
Complication of pregnancy leading to an abortion	Abortion code plus code from 640-648 or 651-657 for the complication
Attempted abortion with liveborn fetus	644.21 plus V27 code for outcome of delivery
Retained products of conception following a spontaneous or legally induced abortion	Code from category 634 with a fifth digit of 1
Missed abortion (fetal death prior to 22 completed weeks gestation, with retained fetus)	632
Ectopic pregnancy (outside the uterus)	Category 633

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Patients in the antepartum or postpartum period may be seen for a variety of reasons:

Reason for Encounter	Use Code
Postpartum care immediately after delivery	V24.0
Postpartum care of lactating mother	V24.1
Routine postpartum follow-up	V24.2
Genetic counseling and advice	V26.4
Antenatal screening	Category V28
Multiparity	V61.5
Illegitimate pregnancy	V61.6
Other unwanted pregnancy	V61.7
Dietary counseling	V65.3
Pregnancy testing, pregnancy unconfirmed	V72.4

Chapter 12—Diseases of the Skin and Subcutaneous Tissue (680-709)

The skin is part of what is known as the integument. This protective covering keeps the deeper tissues from drying out and protects them from injury and infection. The epidermis is the outer layer. It contains nerve endings, hair shafts, sweat gland openings, and several layers of cells. As old cells are worn away, they are replaced. The dermis is the next layer, consisting of hair follicles, sebaceous glands, sweat glands, nerves, arteries, veins, and connective tissue. The superficial fascia is the deepest layer of integument. It is the layer between the skin and the muscles or bones.

Coding for skin conditions is divided into categories for infections, inflammatory conditions, and other diseases. In addition to the hair follicles, sebaceous and sweat glands, the nails are an important appendage to the skin. They grow through proliferation of cells at their roots, pushing the new nail growth out.

This chapter has a few differences from the regular coding schemes. Sunburn is in this chapter, not in the injury chapter that

contains other types of burns. A number of skin infections, despite the fact that they may be contagious, such as impetigo, are in this chapter instead of Chapter 1 of ICD-9-CM. Acute lymphadenitis is in this chapter, while chronic lymphadenitis is in the blood chapter.

Physician documentation is extremely important in correctly classifying dermatitis. There are a number of causes and it is not possible to code the condition correctly without specific information.

As the population ages, a common skin condition among those with limited mobility is the ulcer. Decubitus ulcers, also known as bedsores, result from pressure on skin points from the patient's body weight and the resulting lack of blood circulation. Other types of skin ulcers can result from hypertension, diabetes, or phlebitis, an inflammation of the veins.

There are no official coding guidelines for the skin chapter, but patients with skin conditions can be seen for a number of reasons:

Skin and Subcutaneous Tissue

Reason for Encounter	Use Code
Hair transplant	V50.0
Face lift	V50.1
Aftercare involving the use of plastic surgery	V51
Dressing change or suture removal	V58.3
Aftercare following surgery of the skin and subcutaneous tissue	V58.77
Skin donor	V59.1
Surgery follow-up	V67.00
Screening for skin cancer	V76.43

58 Chapter 2 Diagnosis Coding—A Number for Every Disease**Chapter 13—Diseases of the Musculoskeletal System and Connective Tissue (710-739)**

This chapter covers the bones, joints, muscles and fascia. Many of the code categories in this chapter use fifth digits to denote the anatomic site of the coded condition:

- 0 = site unspecified
- 1 = shoulder region
- 2 = upper arm
- 3 = forearm
- 4 = hand
- 5 = pelvic region and thigh
- 6 = lower leg
- 7 = ankle and foot
- 8 = other specified sites (head, neck, ribs, skull, trunk, vertebra)
- 9 = multiple sites

The adult body contains more than 200 bones and approximately 600 muscles, so it is important to be specific in coding diseases and conditions of these systems. Because they are made primarily of mineral salts such as calcium and are more durable than other body tissues, bones are frequently the only thing left when remains must be examined in conjunction with scientific or legal investigation. The length of various individual bones can be used to estimate the height of a person, while the structure of the pelvis can differentiate between males and females.

Three types of muscles produce movement within the body. Cardiac muscle in the heart wall, and smooth muscle in the stomach, intestine, and blood vessel, are known as involuntary muscles. They work without conscious direction from you and you do not have conscious control over them. Your heart continues to beat without your telling it to do so; you are not able to prevent the smooth muscle in

your stomach from contracting when you vomit. Skeletal muscles, those attached to the bones, are voluntary because they are under your control. Muscles make up more than 40% of your body weight.

Other parts of the musculoskeletal system are ligaments, which connect bone to bone, and tendons, which connect muscle to bone. Fascia is the covering of the muscles, which also contains blood vessels and nerves.

Joints are points at which bones are connected to each other. The shape of the joint determines how it will be able to move:

- Ball and socket joints, such as the hip and shoulder joints, permit movement in basically three directions
- Hinge joints, like the elbow and ankle, permit movement that is mostly restricted to one plane
- Pivot joints, like the skull on the 1st vertebra in the neck, allow for rotation of the head from side to side.
- Sutures between the bones of the skull are joints but are immovable
- Cartilaginous joints, such as the discs between the vertebra, allow for only partial movement
- Gliding joints occur where two flat surfaces of bone glide across each other

Damage to joints, tendons, and ligaments occurs with aging, trauma, and with inappropriate use.

There are no official coding guidelines for the musculoskeletal system chapter, but patients with these conditions may be seen for a variety of reasons:

60 Chapter 2 Diagnosis Coding—A Number for Every Disease**Musculoskeletal System**

Reason for Encounter	Use Code
Joint disorder in conditions classified elsewhere	Code for underlying disease plus code for current arthropathy
Bone infections	Code for current condition plus code for organism, if known
Fitting and adjustment of artificial prosthesis	Arm V52.0 Leg V52.1
Fitting and adjustment of orthopedic devices such as braces, casts, shoes	V53.7
Fitting and adjustment of wheelchair	V53.8
Aftercare involving removal of internal fixation devices such as pins, screws, rods	V54.0
Aftercare for healing traumatic fracture	V54.10–V54.19
Aftercare for healing pathologic fracture	V54.20–V54.29
Aftercare following joint replacement	V54.81
Physical therapy	V57.1
Occupational therapy	V57.21
Orthotic training (artificial limbs)	V57.81
Dressing change or suture removal	V58.3
Aftercare following surgery for injury and trauma	V58.43
Aftercare following surgery of muscular-skeletal system, not elsewhere classified	V58.78
Bone donor	V59.2
Bone marrow donor	V59.3
Exercise counseling	V65.41
Observation following accident	At work V71.3 Other V71.4
Screening for osteoporosis	V82.81 plus code for hormone replacement or menopause
X-ray	Code for findings, or if no findings, code for reason for performing x-ray
Pre-operative exams	V72.81 EKG V72.82 Chest x-ray V72.83 Other Plus code for reason for surgery

Chapter 14—Congenital Anomalies (740-759)

Congenital anomalies are structural defects present at birth. The common term for these conditions is birth defects. A major anomaly is apparent at birth in 3 to 4% of newborns; up to 7.5% of children manifest a congenital defect by the time they are five years old.⁸ They may be due to genetics or teratogens, which are chemical or radiation in nature and affect normal fetal development. Approximately 4,000 congenital anomalies have been identified.⁹

For coding purposes, it is important that the physician define a condition as congenital if it is a condition that could be either congenital or acquired. For example spina bifida, which is a lack of closure of the spinal cord's bony encasement, can only be congenital. However, obstruction of the intestine can be either congenital or acquired. For conditions where either possibility exists, the coder cannot make the assumption that the condition is congenital just because the patient is very young.

Likewise, it may be appropriate to use a code for a congenital condition for an older patient. It is legitimate to do this as long as the condition still exists and the patient is receiving treatment for it.

New medical terminology may result in the use of a term before a code exists. Syndromes are often eponymic, which means they are named after a person. An example of both is Partington's syndrome. It is named after an Australian geneticist and describes X-linked mental retardation. Since there is no code, it would be necessary to code the chromosome deficiency and the mental retardation separately.

There are no official coding guidelines for the congenital anomaly chapter, but patients with these conditions are seen under many circumstances:

62 Chapter 2 Diagnosis Coding—A Number for Every Disease**Congenital Anomalies**

Reason for Encounter	Use Code
Congenital anomaly treated during episode of care when birth occurred	V30-39 for liveborn infant plus code for the congenital anomaly
Infant admitted after birth episode for treatment of anomaly	Code for the anomaly
Contraceptive management (adult with genetic concerns who does not want to reproduce)	V25 category
Genetic counseling and testing	V26.3
Observation of newborn for suspected genetic condition	V29.3
Screening for developmental handicaps in childhood	V79.3
Screening for congenital anomaly of eye	V80.2

Chapter 15—Certain Conditions Originating in the Perinatal Period (760-779)

It is easy to confuse this chapter with the previous chapter on congenital anomalies because both are concerned with conditions present during early childhood. The congenital anomaly chapter is descriptive of structural defects present at birth. The perinatal chapter includes some conditions that start in utero, but also others that occur as a result of the birth process or shortly thereafter. The perinatal period is defined as beginning before birth and lasting through the 28th day of life.

It could be possible to use one of these codes in an adult patient if there is no other code defining the condition for which the patient is being treated. Most conditions in this chapter do not last beyond infancy. However, some, such as bronchopulmonary dysplasia, can last for the lifetime of the patient and be the cause of later problems.

All clinically significant conditions noted on routine newborn examination should be coded. A condition is clinically significant if it requires clinical evaluation, therapeutic treatment, diagnostic

procedures, extended hospital stay, increased nursing care or monitoring, or has implications for future health care needs.

Official coding guidelines for the perinatal chapter are:

Perinatal Conditions

Reason for Encounter	Use Code
Birth of infant	V30-39 categories
Care of infant transferred in after birth	Code(s) for condition(s) being treated (do not use V30-39)
Observation and evaluation of newborn or infant for suspected condition not found	V29 category
Infant being treated for health problem caused by maternal condition	760-763 categories
Prematurity or fetal growth retardation	Do not assign code based solely on weight or gestational age
Newborns testing HIV positive during the first 18 months of life	V01.7 unless physician documents symptomatic HIV infection

Other circumstances under which newborns are seen:

Reason for Encounter	Use Code
Need for prophylactic vaccinations	V03 to V06 categories

Chapter 16—Symptoms, Signs, and Ill-Defined Conditions (780-799)

At the beginning of Chapter 2 of this book, we defined a symptom as an observation you make about your body, a subjective opinion on your part. A sign is observable by the physician, an objective finding.

Since diagnosis sequencing is linked to payer reimbursement of health care providers, rules about sequencing signs and symptoms have been developed:

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Reason for Encounter	Use Code
Treatment of a sign or symptom for which a definitive diagnosis is made	Code for definitive diagnosis
Treatment of a sign or symptom for which a definitive diagnosis has not yet been reached	Code for the sign or symptom
Treatment of a sign or symptom in an outpatient setting where no additional workup is performed	Code for the sign or symptom

The positioning of some conditions in Chapter 16 and other similar wordings in the individual disease chapters is sometimes puzzling. Abdominal pain is a symptom, while joint pain is considered a diagnosis. Male stress incontinence is a symptom, while female stress incontinence is a diagnosis.

This chapter also includes codes for nonspecific and nonspecific abnormal results of diagnostic tests. These codes would ordinarily not be used unless no additional information is available. They could, for example, be used as the reason for conducting additional testing to reach a clear diagnosis.

Chapter 17—Injury and Poisoning (800-999)

The last chapter in the ICD-9-CM Tabular List is huge. It covers not only what we ordinarily think of as injury and poisoning, but also burns and toxic effects of nonmedicinal substances. Significant levels of detail are required in physician documentation to assure correct coding of conditions from this chapter. Most of the code categories in this chapter have 5th digits to specify the precise anatomic site of injury.

Definitions of terms commonly used with injuries are helpful:

Fractures: a break, of any size, in a bone

- Closed: skin is intact
- Open: a break in the skin occurs (compound fracture)

In classifying skull fractures, the time period of any loss of consciousness should be known, along with the nature of any associated injuries.

Stress fractures are hairline cracks in bone that are due to repeated or prolonged force against the bone, not a blow to the bone. Sports or exercise can cause stress fractures. Because they are not considered an injury, they are found in the musculoskeletal chapter in ICD-9-CM (733.93-733.95), not the injury chapter.

Pathological fractures are caused by disease, not injury. The most common causes are osteoporosis and cancer. In these fractures, the bone structure itself is abnormal, contributing to the break. This group is also found in the musculoskeletal chapter (733.1X).

When a bone that forms part of a joint is displaced from that location, it is known as a dislocation. Dislocations can also be categorized as open if the skin is broken. A partial or incomplete dislocation is called a subluxation. These usually occur as a result of injury. In parallel with the classification of fractures, a dislocation due to disease rather than injury is found in the musculoskeletal chapter (718.2X).

Open Wounds

In addition to cuts, lacerations, and punctures, open wounds also include injuries such as animal bites (including human), traumatic amputation, and avulsion. The latter is defined as forcible pulling away of tissue.

- **Complicated:** an open wound is considered to be complicated if there is mention of delayed treatment, foreign body, delayed healing, or infection
- **Uncomplicated:** wounds without mention of complication

Superficial Injuries

These are grouped together in a separate category outside the standard classification. Included are:

- Abrasion or friction burns
- Blisters

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- Insect bites
- Superficial foreign body (such as splinter)
- Other superficial injuries

This classification also divides further cases specifying infection and those with no mention of infection.

Foreign Bodies

Foreign bodies in open wounds are classified in that coding category. Superficial foreign bodies are classified with superficial injuries, as described immediately above. There is a separate category for the effects of foreign bodies entering through an orifice, or natural opening in the body. We are talking here about the pencil eraser in the ear, or the piece of steak stuck in the throat.

The official diagnosis coding guidelines related to injuries are:

Injuries and Fractures

Reason for Encounter	Use Code
Multiple injuries	Use separate code for each injury unless a combination code is available. Do not use multiple injury codes unless information for a specific code is not available.
Multiple injuries	Sequence the code for the most serious injury first.
Abrasions or contusions	Do not code if associated with more severe injuries of same site.
Primary injury with minor damage to nerves or blood vessels	Sequence primary injury first.
Multiple fractures of the same limb in same 3-digit or 4-digit category	Use combination category.
Multiple of same bones but different bone parts	Code individually by site.
Multiple fractures	Sequence in order of severity.
Dislocation associated with fracture of same site	Code fracture only.

Burns

In addition to thermal burns due to flames, the ICD-9-CM burn classification includes burns caused by electricity, lightning, hot liquids (scalding), radiation, and hot objects.

In addition to coding the location or site of the burn, it is necessary to assign a second code to indicate the percentage of body area involved in the burn. This is calculated using what is known as the "rule of nines." The figure below illustrates the percentage of body surface associated with body areas:

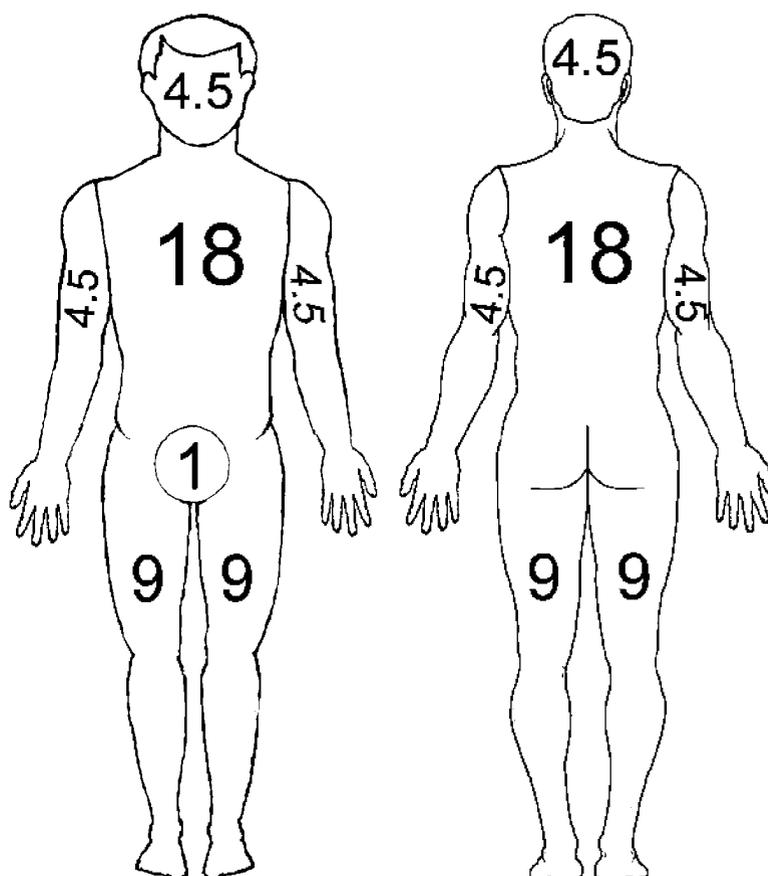


Figure 2-5 Rule of Nines

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The “rule of palms” is useful for smaller areas. The size of the victim’s palm is approximately 1% of body area, so the number of palms will equal the percentage. The definition for the smallest area code in ICD-9-CM is ten percent or less, so it is not necessary to measure precisely unless more than 10% is involved.

- First degree burn: only the outer layer of the skin, the epidermis, is involved. Symptoms include redness, tenderness, pain, and swelling.
- Second degree burn: penetrates into the dermis. The characteristics are: blisters, redness, swelling and fluid seepage.
- Third degree burns: involves all three layers of the skin. The appearance of the skin is white, charred and dry.
- ICD-9-CM also uses the term deep third degree, which is called fourth-degree in other references. These are third degree burns in which additional underlying structures such as bone, tendons, or joints are involved.

Official ICD-9-CM coding guidelines for burns are:

Burns

Reason for Encounter	Use Code
Multiple burns	Sequence the code for the highest degree of burn first
Multiple burns	Code separately. Only use the multiple burn code if location not documented
Non-healing burns, including necrosis of burned skin	Code as acute burns
Multiple burns of same local site but different degrees	Classify to sub-category of the highest degree recorded
Infected burn site	Use 953.8, posttraumatic wound infection
Mortality of burn victim during episode of care, or third degree burn of >20% body area	Use category 948. Fourth digit indicates total involvement. Fifth digit indicates % of third degree burns
Treatment of late effects of burns (scars, joint contractures)	Code for condition being treated plus code for late effect of burn

Poisoning, Adverse Effects and Toxicity

The definitions of these terms are a little different than those used in the average murder mystery:

- Poisoning occurs when a drug, medicinal substance, or other biological substance is not used correctly. This can occur through:
 - Wrong dosage taken by patient
 - Wrong dosage administered to patient
 - Medication taken by wrong person
 - Overdose (intentional or accidental)
 - Intoxication
 - Medications taken in combination with alcohol or over-the-counter medications
- Adverse effects occur when a drug is correctly prescribed and administered but there are side effects:
 - Drug allergy or hypersensitivity
 - Drug intoxication
 - Toxic effect of a drug
 - Drug toxicity (including cumulative effects)
- Toxic effects, from a coding perspective, refer to nonmedicinal substances such as chemicals, gases, metals, foods, and substances such as latex and silicone.

The ICD-9-CM coding manual includes a large table of drugs and chemicals that is used to locate the correct code for poisoning and the correct E-codes for external causes for each listed substance or drug.

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The official diagnosis coding rules for these categories are:

Poisoning and Adverse Effects

Reason for Encounter	Use Code
Adverse effect of a drug correctly prescribed and properly administered	Code for adverse reaction plus E code for adverse effect
Condition caused by error in prescription or administration of drug	Code for poisoning plus code for manifestation
Intentional overdose	Code for poisoning plus code for manifestation
Nonprescribed drug in combination with correctly prescribed and administered drug	Code for poisoning plus code for manifestation
Toxic effect of nonmedicinal substances	Code for toxic effect (980–989) plus code to specify nature of toxic effect

Codes are also available for effects of other external causes:

- Environment: radiation, cold, heat and light, air pressure
- Child maltreatment syndromes
- Anaphylactic shock due to medications
- Anaphylactic shock due to food reactions
- Adult abuse and neglect
- Shock due to anesthesia

Complications of Surgical and Medical Care

Assignment of a code from this section does not imply that the surgical or medical care was inadequate. It does denote that a relationship between the previous care and the current condition has been documented, and that the current condition is more than routinely expected. There is no officially defined time limit on when the complication must occur.

Some complications are due to the presence of internal prosthetic devices, implants, and grafts. They may involve mechanical compli-

cations, such as breakage, leaking, obstructions, or they may involve infection or inflammatory reaction. Other complications such as pain, hemorrhage, stenosis, and fibrosis also have codes defined by the type of internal device.

Complications of organ transplants are also in this section, as are systemic conditions such as post-operative shock, accidental laceration during the procedure, post-op infections, blood transfusion reactions, foreign bodies accidentally left in the patient, and all of the other unfortunate circumstances that may occur.

Patients with conditions in the injury and poisoning chapter of ICD-9-CM may be seen for a variety of associated reasons:

Reason for Encounter	Use Code
Plastic surgery for cosmetic appearance	V50.1
Plastic surgery following healed injury	V51
Fitting and adjustment of prosthetic device or implant	V51.X
Fitting and adjustment of orthopedic devices; casts	V53.7
Aftercare involving removal of fracture plate or other internal fixation devices	V54.0
Aftercare for healing traumatic fracture	V54.1X
Physical therapy	V57.1
Occupational therapy	V57.21
Dressing change or suture removal	V58.3
Aftercare following surgery for injury and trauma	V58.43
Surgery follow-up	V67.00
Follow-up following treatment of healed fracture	V67.4

Supplementary Classification of External Causes of Injury and Poisoning (E800-E999)

Known in coding lingo as the “E codes,” this chapter provides a way to use additional codes to identify how and where an injury or poisoning happened. They are never used as the principal or first-listed code; they are always used in a supplementary fashion. They

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are used primarily for statistical purposes in gathering data on injury cause, intent, and location. This data can be used for injury prevention and education programs.

The major categories of E codes include transport accidents, falls, fire and flames, natural and environmental causes, assaults, self-inflicted injuries, and late effects.

E codes are not generally used in healthcare billing or reimbursement.

Supplementary Classification of Factors Influencing Health Status and Contact with Health Services (V01-V83)

This chapter in ICD-9-CM is used to identify situations in which patients who are not currently sick require health services. The tables previously displayed in describing the chapters of ICD-9-CM included V codes to be used for things like suture removal, routine exams, screening, and aftercare.

V codes are controversial in the healthcare reimbursement arena because they may represent services for which some payers will not pay. The official diagnosis coding guidelines have helped, in recent years, enforce appropriate coding and insurance coverage.

There are four primary circumstances for the use of V codes:

- When a person who is not currently sick encounters health services for a specific reason, such as to act as an organ donor, to receive prophylactic care such as inoculations or screenings, or to receive counseling on a health related issue.
- When a person with a resolving disease or injury, or a chronic long-term condition requiring continuous care, encounters the health care system for specific aftercare of that disease or injury. Examples are dialysis for renal disease, chemotherapy for malignancy, cast change. A diagnosis or symptoms code should be used instead of a V code

whenever a current, acute diagnosis is being treated or a sign or symptom is being studied.

- When circumstances or problems influence a person's health status but are not in themselves a current illness or injury.
- For newborns, to indicate birth status.

V Code Category Definitions

Category	Definition
V01	Contact / exposure: Patients do not show any sign or symptom of a communicable disease but have been exposed to it. Used to indicate a reason for testing or as a secondary code to identify a potential risk
V03-V06	Inoculations and vaccinations: Patient is being seen for a prophylactic inoculation against a disease.
	Status codes: The patient is either a carrier of a disease or has the sequelae of a past disease or condition, which can include the presence of a prosthetic or mechanical device or transplanted organ from previous treatment.
V02	Carrier or suspected carrier of infectious disease
V08	Asymptomatic HIV infection status
V09	Infection with drug-resistant microorganisms
V21	Constitutional states in development, such as low birth weight
V22.2	Pregnant state, incidental
V26.5X	Sterilization status; patient has been sterilized
V42	Organ or tissue replaced by transplant
V43	Organ or tissue replace by other means
V44	Artificial opening status (colostomy, tracheotomy, etc.)
V45	Other postsurgical states (pacemaker, bypass, etc.)
V46	Other dependence on machines (respiratory)
V49.6	Upper limb amputation status
V49.7	Lower limb amputation status
V48.81	Postmenopausal status
V49.82	Dental sealant status
V58.6	Long-term current drug use (prescribed), such as anticoagulants, aspirin therapy, etc.
V83	Genetic carrier status
	History of codes: Indicate personal or family history
V10	Personal history of malignant neoplasm
V12-V13	Personal history of other diseases
V14	Personal history of allergy to medicinal agents

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V Code Category Definitions (continued)

Category	Definition
V15	Personal history presenting hazards to health (other allergies, surgery, psychological trauma, abuse, tobacco use, etc.)
V16	Family history of malignant neoplasm
V17	Family history of chronic disabling disease (stroke, asthma, epilepsy, etc.)
V18-V19	Family history of other conditions (diabetes, kidney disease, congenital anomalies)
	Screening: Testing for disease or disease indicators in seemingly well individuals so that early detection and treatment can be provided. A V code is not used if the patient already has a sign or symptom.
V28	Antenatal screening
V73-V82	Special screening examinations
	Observation: Patient is being observed for a suspected condition that is ruled out.
V29	Observation and evaluation of newborns for suspected condition not found
V71	Observation and evaluation for suspected condition not found
	Aftercare: The initial treatment of a disease or injury has been performed and the patient requires continued care during the healing or recovery phase, or for the long-term consequences of the disease. V code is not used if the treatment is directed at a current condition. Exceptions are chemotherapy and radiation therapy.
V52	Fitting and adjustment of prosthetic device and implant
V53	Fitting and adjustment of other device
V54	Other orthopedic aftercare
V55	Attention to artificial openings (closure, cleaning)
V56	Encounter for dialysis
V57	Rehab procedures
V58.0	Radiotherapy
V58.1	Chemotherapy
V58.3	Attention to surgical dressings and sutures
V58.41	Planned post-operative wound closure
V58.4X	Surgical aftercare
V58.81	Fitting and adjustment of catheters
V58.83	Therapeutic drug monitoring
V58.89	Other

Category	Definition
	Follow-up: Continuing surveillance following completed treatment of a disease, condition, or injury. The condition has been fully treated and no longer exists.
V24	Postpartum care and evaluation
V67	Follow-up examinations
V59	Donor: Living individuals who are donating blood or other body tissues to other. Not for self-donation or cadaveric donations.
	Counseling: Patient or family member receives assistance in the aftermath of an illness or injury for when support is required in coping with family or social problems.
V25.0	Contraceptive management
V26.3	Genetic counseling
V26.4	Procreative management
V61	Other family circumstances
V65.1	Consulting on behalf of another person
V65.3	Dietary surveillance and counseling
V65.4	Other
	Routine and administrative examinations: General check-up or exam such as pre-employment physical. Pre-op exam codes are for clearance only
V20.2	Well child check
V70	General medical exam
V72	Special investigations and exams
	Miscellaneous and nonspecific V codes:
V07	Need for isolation
V50	Elective surgery
V64	Procedures not carried out
V66	Palliative (end of life) care
V68	Prescription renewals, death certificates, etc.
V58.2	Blood transfusion without diagnosis
V72.5	Radiology exam without reason for test
V72.6	Lab test without reason

76 Chapter 2 Diagnosis Coding—A Number for Every Disease***How Can You Code Your Conditions?***

If you have a sign, symptom, or diagnosis that you want to code, follow these steps:

1. Look for the condition in the Alphabetical Index. You may have to look in more than one place. If you don't find it listed under one of the terms, look under the others.
2. Once you have found the term, look at everything indented beneath it to see if there are other words from your diagnosis statement that apply.
3. After you have located what seems to be the correct term in the alpha listing, look up the number in the Tabular List.
4. Make sure you read all of the notes associated with your numeric code. Some of the notes may be at the top of the heading under which your number is listed. Some of the notes are "includes" that tell you what is included under this number, while some are "excludes" that may point you to another chapter and diagnosis code.

Keeping Up To Date

ICD-9-CM is updated twice a year, effective October 1st and April 1st. Diagnosis and procedure codes are added to cover newly identified disease states and new techniques in surgery. CMS and the National Center for Health Statistics (NCHS) publish these agenda in the United States with the approval of the World Health Organization. The diagnosis section of ICD-9-CM is the responsibility of NCHS while CMS handles the procedure section. The other two Cooperating Parties on ICD-9-CM are the American Health Information Management Association (AHIMA) and the American Hospital Association (AHA). The Central Office on ICD-9-CM, housed at the American Hospital Association in Chicago, publishes *Coding*

Clinic, a quarterly publication covering updates, coding guidelines, and readers' questions.

It is imperative that you use the current version of ICD-9-CM to research or solve personal coding-related concerns. When codes are revised, the code used is based on the date of service of your procedure. There is no longer any grace period during which it is okay to use either old or new codes.

Misdiagnosis: The Wrong Path

The patient was a 39-year-old male previously in good health. He was on summer vacation near the ocean and over a two-day period participated in several strenuous activities, such as swimming, sailing, jogging, even putting out a small forest fire. He later experienced chills and was so tired that he went to bed early. By the next morning, one leg was weak. It became paralyzed by the afternoon, and in the evening the other leg was weakened. He had a temperature of 102 degrees Fahrenheit. The family physician who examined the patient decided he had a cold.

By the second day, the paralysis had spread to all body areas below the chest. A specialist examined the patient and decided the problem was a blood clot in the lower spinal cord. Not until the fifteenth day of the illness was another diagnosis made. The patient was Franklin Delano Roosevelt and the diagnosis was poliomyelitis.

Even after Roosevelt's death, the debate about the cause of his paralytic illness continues. At the time, the diagnosis of polio seemed appropriate because it was the most common cause of paralysis in the United States, it was contracted during the summer, and was accompanied by fever. Researchers looking at the diagnosis retrospectively point to the patient's age of 39 and the lack of physician knowledge about other potential causes as indicative of the fact that the actual culprit was Guillain-Barre syndrome, an autoimmune condition.¹⁰

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Misdiagnosis can occur when:

- Doctors lack sufficient time to analyze thoroughly
- Testing is not performed in order to save money
- Knowledge about less common diseases is lacking
- Patients do not communicate complete information
- Tests are not completed due to patient noncompliance
- Testing errors occur (equipment failure, human error)
- Objective testing is not possible
- Diagnosis is difficult to confirm
- Diagnosis is required for desired treatment implementation (example is attention deficit hyperactivity disorder “ADHD” treated with methylphenidate)

If you obtain information that indicates to you that the wrong diagnosis has been made, it is important that you discuss the matter with your physician. He can review the facts with you and if necessary, change his opinion. It is important that the incorrect diagnosis does not remain on your medical record, as it could affect your future treatment and well-being.

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