

Coders' Desk Reference for ICD-10-CM Diagnoses

Clinical descriptions with answers to your toughest
ICD-10-CM coding questions

SAMPLE

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Introduction

Coders' Desk Reference for Diagnoses is an ICD-10-CM coding reference that provides comprehensive lay descriptions of diseases, injuries, poisonings, and other conditions. It has been developed for coders, billers, and other health care professionals in all health care settings, including medical offices, hospitals, post-acute care settings, and health insurance companies. It is also a valuable reference for educators and students who seek to expand their understanding of diagnostic coding. The goal is to enrich the user's clinical understanding of ICD-10-CM so that code selection becomes more accurate.

It should be noted that this diagnostic coding reference is intended to be used with an official ICD-10-CM code book. The *Coders' Desk Reference for Diagnoses* does not include the comprehensive index or guidelines found in the official ICD-10-CM, nor does it include coding instructions from the tabular section. Information related to includes and excludes notes have also been omitted as providing this information would be redundant to what is readily available in an official ICD-10-CM code book. For these reasons, *Coders' Desk Reference for Diagnoses* does not replace an official code book; however, used in conjunction with a code book, this reference provides an unparalleled clinical roadmap to code selection.

Format

The *Coders' Desk Reference for Diagnoses* follows the organization of the tabular section of ICD-10-CM with the same 22 chapters beginning with Chapter 1: Certain Infectious and Parasitic Diseases and ending with Chapter 22: Codes for Special Purposes.

Each chapter is organized using a format similar to the tabular section of ICD-10-CM with chapters subdivided into blocks, alphanumeric categories, subcategories, and codes. Chapters begin with a general overview of diseases and other conditions classified to the chapter. Following the chapter overview, each chapter is divided into the various blocks where information is provided related to categories included in the block. This is followed by the lay descriptions. Lay descriptions may be provided at the category, subcategory, or code level.

Not all categories, subcategories, or codes have been represented in the *Coders' Desk Reference for Diagnoses*. The 2024 edition of *Coders' Desk Reference for Diagnoses* focuses on:

- A subset of the new fiscal year 2024 diagnosis codes released by the National Center for Health Statistics (NCHS) and the Centers for Medicare and Medicaid Services (CMS)
- Codes regularly encountered in various health care settings
- Codes that require in-depth clinical information in order to differentiate the represented condition from similar conditions that would be captured with other, more specific codes

Additional codes and lay descriptions will gradually be incorporated into future editions. Due to the structure of ICD-10-CM, many categories, subcategories, and codes have been updated with more robust official descriptions. In some cases, official code descriptions supply enough information about the disease process and any associated manifestations that provide additional narrative would be redundant. Also, codes in many categories and subcategories provide information related to site and/or laterality. Although site and laterality are important for valid code selection, they do not need additional explanations beyond the related disease process provided at the category or subcategory level.

ICD-10-CM Codes and Lay Descriptions

The codes in *Coders' Desk Reference for Diagnoses* are based on the official version of the *International Classification of Diseases, 10th Revision, Clinical Modification* effective October 1, 2024.

Coders' Desk Reference for Diagnoses is organized in a hierarchical context, similar to how the ICD-10-CM code book is organized with lay descriptions provided at the three, four, five, and/or six character level. Lay descriptions at the category level provide a broad overview of diseases or other conditions classified to the category. Category-level lay descriptions may be followed by subcategory and/or code level lay descriptions. Lay descriptions at the subcategory and code levels build on the information provided at the category level. The category level will be the most general and provides information relevant to all subcategories and codes in the category. The subcategory is more specific with the code level lay description providing the most detailed information about the disease, injury, or other condition.

Because some lay descriptions are not carried to the code level, the book uses a dash (-) to differentiate invalid codes from valid codes.

Valid Code

A valid code in the *Coders' Desk Reference for Diagnoses* is any code for which a dash (-) is not appended to the end of an alphanumeric code. Valid codes may be three characters to seven characters long.

Example: Lay description for valid three-character code

B20 Human immunodeficiency virus [HIV] disease

HIV is a blood-borne virus in that it is transmitted through body fluids containing blood or plasma. Transmission of HIV can occur sexually or nonsexually through the exchange of body fluids infected with a high concentration of the virus, mainly blood, semen, or vaginal/cervical secretions. Initially, HIV may be present in the body, but may be asymptomatic. During this period, the patient is HIV positive but does not have HIV disease. In symptomatic HIV, symptoms of a weakened immune system are present, and may include general lymphadenopathy, anorexia, fever, malaise, diarrhea, anemia, oral hairy leukoplakia, and oral candidiasis, but the patient does not have advanced AIDS. HIV is divided into two categories: HIV-1 and HIV-2. HIV-1 is seen worldwide; HIV-2 is limited to Africa and other countries and is seldom seen in the United States. HIV-1 has far-ranging health effects and manifestations. This code is reserved for patients with symptomatic HIV-1 infections or AIDS.

Example: Lay description for valid five-character code

O86.81 Puerperal septic thrombophlebitis

Septic thrombophlebitis is inflammation of a vein (phlebitis) due to an infected blood clot (thrombus). In puerperal septic thrombophlebitis, the infected thrombus develops during the postpartum period. In most cases, these occur as a complication from a puerperal infection (e.g., endometritis). Septic embolism is a potential complication.

Invalid Code

An invalid code, one that needs additional characters, has a dash (-) appended to the alphanumeric code. The dash informs the user that the code is not a complete code, and the ICD-10-CM code book should be referenced to determine the appropriate valid code selection. Any lay description information supplied at this level applies to all subcategories and/or codes that would be found indented under this code in the tabular section of an official ICD-10-CM code book.

Example: Category level lay description requiring additional characters

D57.- Sickle-cell disorders

Sickle-cell disorders are severe, chronic diseases caused by a genetic variation in the hemoglobin protein in the red blood cell. These are the most common types of inherited blood disorders in the United States and are found most predominantly in African Americans. A red

Prefixes and Suffixes

The uniquely efficient language of medicine is possible thanks to the prefixes and suffixes attached to roots. Changing prefixes and suffixes allows subtle and overt changes in meaning of the terms. The following prefixes and suffixes are paired with their meanings.

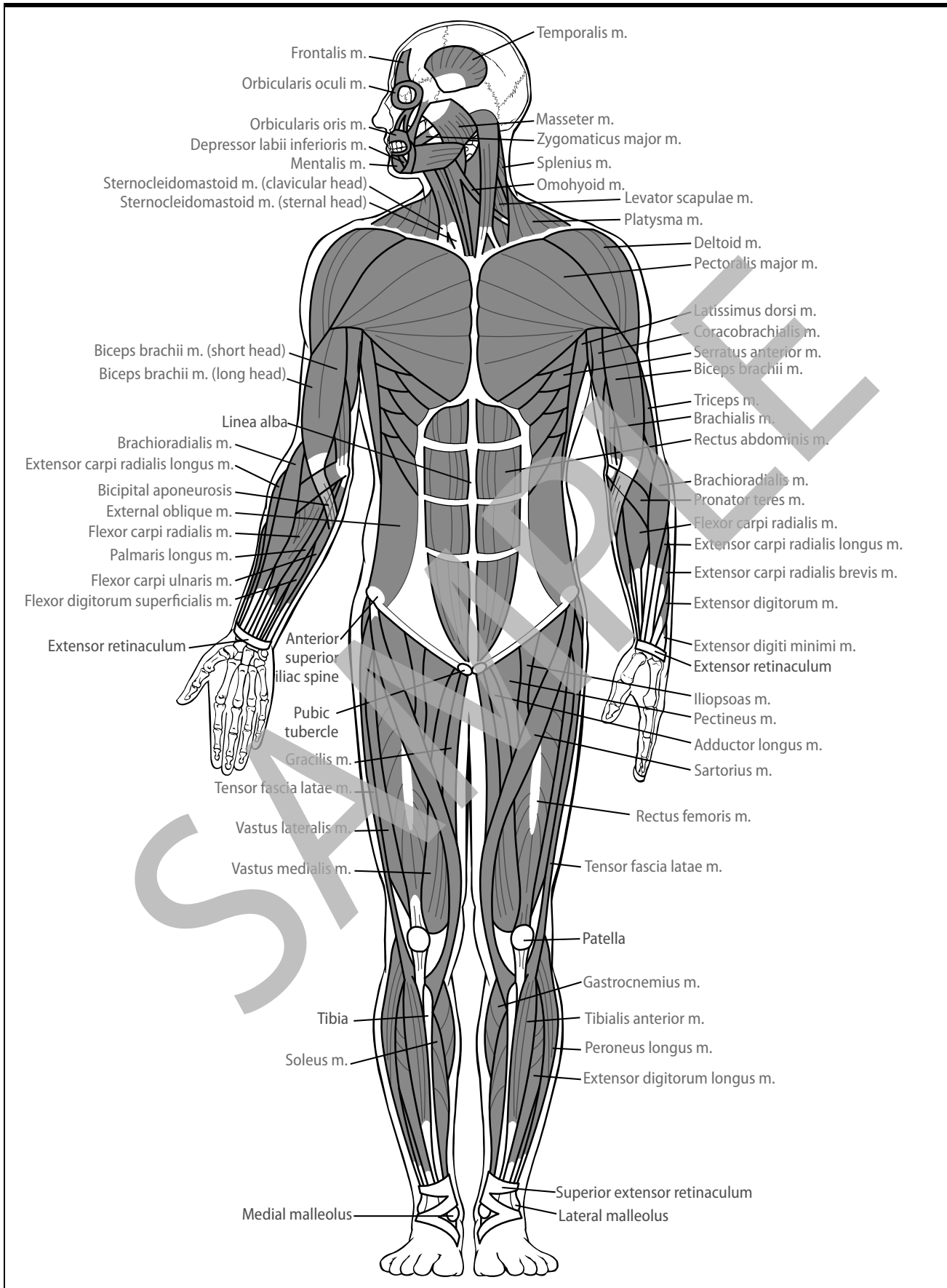
Prefixes

Prefixes are one half of the medical language equation and are attached to the beginning of words. For example, the prefix “eu-,” meaning good or well, combined with the Greek word for death, “thanatos,” produces euthanasia — a good death.

a-, an-	without, away from, not
ab-	from, away from, absent
acanth(o)-	thorny, spine
acro-	extremity, top, highest point
ad-	indicates toward, adherence to, or increase
adeno-	relating to a gland
adip(o)-	relating to fat
aero-	relating to gas or air
agglutin-	stick together, clump
alb-	white in color
alge(si)-	awareness to pain
all(o)-	indicates difference or divergence from the norm
ambi-	both sides; about or around (also amphi-)
ambly-	dull, dimmed
an-	without
andro-	male
angi-	relating to a vessel
aniso-	dissimilar, unequal, or asymmetrical
ankylo-	bent, crooked, or two parts growing together
ante-	in front of, before
antero-	before, front, anterior
anti-	in opposition to, against
antro-	relating to a chamber or cavity
aphth(o)-	ulcer
arch-	beginning, first, principal (also arche-, archi-)
archo-	relating to the rectum or anus
arterio-	relating to an artery
arthro-	relating to a joint
astro-	star-like or shaped
atelo-	incomplete or imperfect
auto-	relating to the self
axio-	relating to an axis (also axo-)
balano-	relating to the glans penis or glans clitoridis
baro-	relating to weight or heaviness
basi(o)-	relating to the base or foundation
bi-	double, twice, two
blasto-	relating to germs
blenn(o)-	relating to mucus
blepharo-	relating to the eyelid
brachi(o)-	relating to the arm
brachy-	short
brady-	meaning slow or prolonged
broncho-	relating to the trachea

bucc(o)-	relating to the cheek
cac-	meaning diseased or bad (also caci-, caco-)
cardio-	relating to the heart
cari(o)-	rot, decay
carpo-	relating to the wrist
cata-	down from, down, according to
cathar(o)-	purging, cleansing
caud(o)-	lower part of body
celo-	indicating a tumor or hernia; cavity
cerebr(o)-	relating to the brain
cervico-	relating to the neck or neck of an organ
chilo-	relating to the lip (also cheilo-)
chole-	relating to the gallbladder
cholecho-	relating to the common bile duct
chondr(o)-	relating to cartilage
chromo-	color
cirrho-	yellow in color
cleid(o)-	relating to the clavicle
coel-	cavity, ventricle
coen(o)-	common, shared
cole(o)-	sheath
colp(o)-	relating to the vagina
cryo-	frozen, cold
crypto-	hidden
cyst(o)-	relating to the urinary bladder or a cyst
cyto-	in relation to cell
dacry-	pertaining to the lacrimal glands
dactyl-	relating to the fingers or toes
demi-	half the amount
desicco-	drying
desmo-	relating to ligaments
deuter-	secondary or second
dextro-	meaning on or to the right
dorsi-	relating to the back (also dorso-)
dys-	painful, bad, disordered, difficult
echo-	reverberating sound
ecto-	external, outside
ectro-	congenital absence of something
endo-	within, internal
entero-	relating to the intestines
eosino-	red in color
epi-	on, upon, in addition to
erythr(o)-	red in color
esthesio-	sensation (also esthesia-)
eu-	well, healthy, good, normal
exo-	outside of, without
ferr-	iron
fibro-	relating to fibers or fibrous tissue
galacto-	relating to milk
gastro-	relating to the stomach and abdominal region
genito-	relating to reproduction
glauco-	gray in color

Muscles



A01.0- Typhoid fever

Salmonella typhi is the responsible bacterial agent of typhoid fever and is generally transmitted by the ingestion of food or water that is contaminated with feces from an infected person. The microorganism moves through the gastrointestinal tract and enters the bloodstream through the lymphatic system.

A02.- Other salmonella infections

This category classifies infections related to all salmonellas—more than 1,500 serotypes—except congenital, typhoid, and paratyphoid salmonella. *Salmonella* serotypes most often seen in humans include *S. enteritidis*, *S. Newport*, and *S. typhimurium*. Salmonella infection is a significant health problem and is the most common food-borne infectious disease diagnosed in the United States. Meat, poultry, raw milk, eggs, fruits, and vegetables are the most common sources of infection. Other reported sources include infected pet turtles or lizards, infected dyes, or contaminated marijuana. The bacteria pass through the stomach and colonize in the intestines. The bacteria invade enterocytes, epithelial cells, and dendritic cells in the intestine resulting in an inflammatory response. Bacteria may cross the epithelial layer of the intestine and replicate in Peyer patches (bundles of lymphatic tissue in the small intestine), mesenteric lymph nodes, and the spleen. Salmonella infections can become disseminated causing sepsis or infections of the central nervous system, lungs, joints, bone, kidneys, and other sites. About 85 percent of salmonella infections present as gastroenteritis, with the other 15 percent as septicemia or with other manifestations. About one-third of all untreated infections result in complications.

A02.0 Salmonella enteritis

Salmonella enteritis, also known as salmonella gastroenteritis, is an infection of the gastrointestinal tract that is caused by the ingestion of contaminated foods, eggs and poultry being the most common sources. Symptoms typically occur within hours to two days and typically last no more than seven days even without the use of antibiotics.

Focus Point

Dehydration (E86.0) is a complication of Salmonella enteritis and should be reported additionally when documented.

A02.1 Salmonella sepsis

Sepsis is a complication of a localized infection caused by a systemic or body-wide response to the infectious agent. Symptoms of sepsis include a body temperature above 101 degrees or below 96.8 degrees Fahrenheit, rapid heart rate (above 90 beats per minute), and rapid respiratory rate (above 20 breaths per minute). Some *Salmonella* serovars (strains) are more apt to cause a systemic response than others.

A02.2- Localized salmonella infections

Localized infection occurs as a result of salmonella bacteria crossing the epithelium of the small intestine and entering the bloodstream, which allows colonization to other sites. The most common sites of localized infection include meninges of the spinal cord and brain, lungs, joints, bone and bone marrow, and kidneys. Other sites of localized infection include the heart, arteries, lymphatic cells (macrophages and monocytes), lymphatic tissue, and the genital region.

A02.21 Salmonella meningitis

Salmonella meningitis, an infection of the membranes covering the brain and spinal cord, is a rare complication of salmonella infection and a rare type of bacterial meningitis. It occurs predominantly in newborns, although immunocompromised individuals are also at risk. Symptoms indicative of meningitis include stiff neck, photophobia (intolerance to bright light), confusion or delirium, sleepiness or difficulty waking, and seizures.

A02.22 Salmonella pneumonia

Salmonella pneumonia is a rare complication of a salmonella infection occurring most often in infants, the elderly, immunocompromised individuals, and individuals with previous lung pathology such as lung

cancer. Symptoms indicative of pneumonia include fever, shortness of breath (dyspnea), elevated heart rate (tachypnea), noncardiac chest pain, and productive cough.

A02.23 Salmonella arthritis

Salmonella arthritis occurs when salmonella bacteria cross the epithelium of the small intestine, enter the bloodstream, and colonize in one or more joints causing acute suppurative arthritis.

Focus Point

Reactive arthritis, also known as Reiter's disease or syndrome, is a chronic condition that can occur weeks or months after salmonella gastroenteritis. Reactive arthritis is classified to Chapter 13 Diseases of the Musculoskeletal System and Connective Tissue, with codes in category M02.

A02.24 Salmonella osteomyelitis

Infection of bone and bone marrow due to *Salmonella* is a rare complication that occurs primarily in children. Osteomyelitis symptoms include localized pain and inflammation at the site of the bone or bone marrow infection, as well as systemic symptoms such as fever, irritability, and malaise. *Salmonella* osteomyelitis may be diagnosed by puncture aspiration at the site of the infection or by positive blood cultures. X-rays may also be obtained and typically show bone changes characteristic of osteomyelitis.

A02.25 Salmonella pyelonephritis

Pyelonephritis due to *Salmonella* is an infection of the renal pelvis and renal parenchyma. The renal pelvis and renal parenchyma are composed of cells called nephrons that make up the functional tissue of the kidneys. Acute pyelonephritis can result in abscess formation, scarring, and can permanently damage the kidney with resultant kidney failure.

A02.29 Salmonella with other localized infection

Localized endocarditis due to *Salmonella* is classified here.

A03.- Shigellosis

Shigellosis is a bacterium that causes an acute infection of the bowel with fever, irritability, drowsiness, anorexia, nausea, vomiting, diarrhea, abdominal pain, and distension. Blood, pus, and mucus are found in the stool. Ingestion of food contaminated by feces of infected individuals is the most common source of infection. Incubation period is one to four days. There are four species in the *Shigella* genus and they differ according to their biochemical reactions.

A04.- Other bacterial intestinal infections

Bacterial intestinal infections are caused by the ingestion of pathogenic bacteria that then colonize in the gastrointestinal tract. Other bacterial causes of enteritis, also called gastroenteritis, are classified here, including *Escherichia coli*, *Campylobacter*, *Yersinia enterocolitica*, and *Clostridium difficile*. Unspecified bacterial enteritis is also included in this category.

A04.0 Enteropathogenic Escherichia coli infection**A04.1 Enterotoxigenic Escherichia coli infection****A04.2 Enteroinvasive Escherichia coli infection**

Escherichia coli (*E. coli*) are a copious and diverse group of bacteria that range from relatively harmless to those that cause serious, life-threatening gastrointestinal illness. Enteropathogenic, enterotoxigenic, and enteroinvasive are three types of pathogenic *E. coli* that are non-Shiga toxin-producing strains that can cause acute gastroenteritis. All three of these strains are transmitted by consumption of food or water contaminated with animal or human feces containing the infectious bacteria. Enteropathogenic *E. coli* infection (EPEC) primarily affects infants and young children in developing countries. The virulence of EPEC strains is its ability to efface microvilli of the epithelial cells lining the intestines. Once the microvilli are effaced, two genes in EPEC act together to allow intimate attachment of the bacteria to the epithelial cells. Enterotoxigenic *E. coli*

Chapter 7: Diseases of the Eye and Adnexa (H00-H59)

The eye is the organ of sight and has a complex anatomy and physiology. The structures of the eye, which include structures of the ball or globe, are differentiated from its supporting structures, which are ocular adnexa and bony orbit. The globe can be divided into two segments: the anterior segment, which includes the lens and all tissue anterior to the lens, and the posterior segment, which includes everything in the eyeball that is situated behind the lens. The structures of the anterior and posterior segments are surrounded by fluid: aqueous humor in the anterior segment and vitreous humor in the posterior segment. The fluid within the globe is what gives the eye its shape and it is also essential to the health of the internal structures of the eye. The globe of the eye rests in fatty tissue in the bony orbit of the skull where it is protected from jarring actions. The external structures of the eye, which include the eyelids, lacrimal system, and ocular muscles, together make up the ocular adnexa. These structures provide further protection of the globe and are also responsible for essential functions such as eye movement.

A thin, vascular mucous membrane covers the inner eyelids and the white outer shell of the eye (sclera). This membrane is called the conjunctiva. The cornea is the bulging “window” through which we see and the retina is the light-sensitive “viewing screen” at the back of the eye. The choroid is a vascular layer of the inside of the eyeball.

The chapter is broken down into the following code blocks:

H00-H05	Disorders of eyelid, lacrimal system and orbit
H10-H11	Disorders of conjunctiva
H15-H22	Disorders of sclera, cornea, iris and ciliary body
H25-H28	Disorders of lens
H30-H36	Disorders of choroid and retina
H40-H42	Glaucoma
H43-H44	Disorders of vitreous body and globe
H46-H47	Disorders of optic nerve and visual pathways
H49-H52	Disorders of ocular muscles, binocular movement, accommodation and refraction
H53-H54	Visual disturbances and blindness
H55-H57	Other disorders of eye and adnexa
H59	Intraoperative and postprocedural complications and disorders of eye and adnexa, not elsewhere classified

Disorders of Eyelid, Lacrimal System and Orbit (H00-H05)

The lacrimal system of each eye, also called the lacrimal apparatus, consists of the lacrimal gland, ducts, canaliculi, and the nasolacrimal sac. The lacrimal gland produces the watery component of tears, which mixes with an oil component produced by the meibomian glands that line the edge of the eyelids and a mucous component produced by the goblet cells in the conjunctiva. The lacrimal glands consist of superior and inferior lobes and are located above and at the outer aspect of the eye behind the eyebrow bilaterally. The lacrimal ducts are connected to the inferior lobes of the lacrimal glands and carry the tears to the eye where this watery tear film is distributed over the surface of the eye by blinking of the eyelids. Any excess tear film leaves the eyes via two small openings called the lacrimal puncta, located at the inner corner of the eye, and drain into the superior and inferior lacrimal canaliculi. From there, the fluid enters the lacrimal sac and then the nasolacrimal duct where it drains into the nose.

The categories in this code block are as follows:

H00	Hordeolum and chalazion
H01	Other inflammation of eyelid

H02	Other disorders of eyelid
H04	Disorders of lacrimal system
H05	Disorders of orbit

Focus Point

The majority of codes in this code block have laterality as a component of the code and most conditions that affect the eyelid also identify the site as the upper or lower eyelid.

H00.- Hordeolum and chalazion

A hordeolum is a purulent, localized infection of the sebaceous or meibomian glands of the eyelid, resulting in swelling. A hordeolum may be preceded by a chalazion, which is a chronic, inflammatory, noninfectious lesion. A hordeolum is characterized by a sudden and rapidly progressive (acute) presentation. Due to the nature of the infection, a hordeolum is often tender to palpation, reddened, and painful. The most common causal organism is *Staphylococcus*.

H00.0- Hordeolum (externum) (internum) of eyelid

A hordeolum is an infection or inflammation of the eyelid involving the hair follicles of the external eyelid or the meibomian glands of the internal eyelid.

H00.01- Hordeolum externum

Hordeolum externum, or sty, may present as a small, superficial lump due to infection involving the Moll (oil) gland (also termed glands of Zeis), which arise from the eyelash follicle along the lid margins. It is typically painful and is located at the external skin side of the eyelid margin.

H00.02- Hordeolum internum

Hordeolum internum is usually a larger lump affecting the meibomian gland and arises from the internal eyelid margin toward the conjunctiva.

H00.03- Abscess of eyelid

Abscess of eyelid is an inflamed pocket of pus on the eyelid, possibly with an unknown point of origin.

H00.1- Chalazion

A chalazion is a chronic inflammation of the meibomian gland resulting in an eyelid mass. The meibomian gland is a tiny excretory gland in the eyelid that produces sebum to lubricate the eye. The sebum is discharged through tiny openings along the edges of the eyelids. The sebum secreted from the meibomian gland is an oily substance that also serves to prevent the tear film from evaporating and creates a protective barrier. When the glands become obstructed due to inflammation, a mass (chalazion) forms as a result of the blockage.

H01.- Other inflammation of eyelid

Four specific inflammatory conditions of the eyelid are included in this category: blepharitis, noninfectious dermatoses, eczematous dermatitis, and xeroderma.

H01.0- Blepharitis

Blepharitis is an inflammation of the eyelids. It is a common condition linked to bacterial infections and/or skin diseases. Blepharitis appears in two locations: anterior and posterior. Anterior blepharitis involves the outer-front portion of the eyelid margins, where the eyelashes are located. Posterior blepharitis involves the inner portion of the eyelid that makes contact with the eyes. It is not typically contagious, but recurrence can result in complications such as styes, hordeola, and chalazia.

H01.01- Ulcerative blepharitis

Ulcerative blepharitis is a severe presentation characterized by marked swelling and erosive, purulent ulcer formation along the lid margins, resulting in loss of eyelashes. It is typically caused by an infectious organism such as a virus or bacteria. Symptoms include crust formation in and around the eyelash area that often becomes matted during sleep,

Chapter 12: Diseases of the Skin and Subcutaneous Tissue (L00-L99)

This chapter classifies diseases and disorders of the epidermis, dermis, subcutaneous tissue, nails, sebaceous glands, sweat glands, and hair and hair follicles. The skin is the largest organ system, covering the entire external surface of the body. Known as the integumentary system, the skin serves many purposes. It protects tissue layers from damage and provides waterproofing and cushioning. It also helps the body excrete wastes properly and regulate temperature, and provides the nerves with a surface for originating sensory receptors.

The top layer of the skin is known as the epidermis. This thinner portion of the skin mainly exists to absorb nutrients and to protect deeper tissue layers. The deeper and thicker layer of the skin is the dermis. The dermis is the connective tissue layer and contains the sweat glands, sebaceous glands, hair roots and follicles, blood vessels, sensory receptors, and other important structures of the integumentary system. Beneath the dermis is the hypodermis, or subcutaneous layer. This layer is not part of the skin itself, but the tie between the integumentary system and the fascia below.

The sweat glands, also known as sudoriferous glands, are found throughout the body. There are three to four million of these glands, which release perspiration onto the surface of the skin through small holes called pores. This process helps regulate body temperature by releasing perspiration and allowing it to evaporate.

The sebaceous glands secrete sebum, an oily substance that keeps the skin and hair from drying out. The sebaceous glands are attached to a portion of the hair follicles. The hair and follicles are quite a complex system, allowing for continuous growth and regeneration. Hair, itself, can be thought of as a recycling system, using dead, keratinized epidermal cells to bond with proteins to create the hair within the follicle. The hair shaft grows out from the follicle, through the epidermis, and out of the skin entirely. The function of hair depends on its location—in some locations it helps avoid heat loss, while in other locations it protects from foreign bodies.

The chapter is broken down into the following code blocks:

L00-L08	Infections of the skin and subcutaneous tissue
L10-L14	Bullous disorders
L20-L30	Dermatitis and eczema
L40-L45	Papulosquamous disorders
L49-L54	Urticaria and erythema
L55-L59	Radiation-related disorders of the skin and subcutaneous tissue
L60-L75	Disorders of skin appendages
L76	Intraoperative and postprocedural complications of skin and subcutaneous tissue
L80-L99	Other disorders of the skin and subcutaneous tissue

Infections of the Skin and Subcutaneous Tissue (L00-L08)

Infections of the skin and subcutaneous tissue range from staphylococcal scalded skin syndrome and impetigo to cutaneous abscess, furuncle, and carbuncle. Cellulitis, lymphangitis, acute lymphadenitis, pyoderma, and pilonidal cyst and sinus are also classified here.

The categories in this code block are as follows:

L00	Staphylococcal scalded skin syndrome
L01	Impetigo

L02	Cutaneous abscess, furuncle and carbuncle
L03	Cellulitis and acute lymphangitis
L04	Acute lymphadenitis
L05	Pilonidal cyst and sinus
L08	Other local infections of skin and subcutaneous tissue

Focus Point

When assigning a code from categories L00-L08, also assign a secondary code from categories B95-B97 to identify the infective organism, when the infective organism is documented.

L00 Staphylococcal scalded skin syndrome

Staphylococcal skin infection primarily affects children younger than 5 years of age, and is characterized by eruptions ranging from a localized bullous to widespread, easily ruptured fine vesicles and bullae. This results in marked exfoliation (shedding) of large planes of skin leaving raw edges and giving the skin its characteristic “scalded” appearance.

L01.- Impetigo

Impetigo is an acute, superficial, highly contagious skin infection commonly occurring in children. Skin lesions usually appear on the face and consist of subcorneal vesicles and bullae that burst and form yellow crusts. Usually caused by streptococci, staphylococci, or both, impetigo occurs most frequently after a minor skin injury such as a cut, scrape, or insect bite but infrequently may also develop on healthy skin. Signs and symptoms of impetigo include skin lesions, itching, and mild pain. A gram stain and culture of the lesion identify the infective organism, and antistreptolysin-O (ASO) titers detect streptococcal infection. Therapies include triple antibiotic ointment (bacitracin, Polysporin, and neomycin).

L01.01 Non-bullous impetigo

Non-bullous impetigo originates as small vesicles or pustules that break, exposing a red, moist base, with secretion that form a honey-yellow to white-brown crust. Mild lymphadenopathy is also often present. Non-bullous impetigo usually resolves on its own within two weeks.

L01.02 Bockhart's impetigo

Also called follicular pyoderma, Bockhart's impetigo is an infection of the hair follicles with *Staphylococcus aureus*. Yellow pustules form in the follicles in the face, scalp, and limbs and can be caused by shaving, insect bites, or scratches.

L01.03 Bullous impetigo

Bullous impetigo is considered to be less contagious than non-bullous, and also differs in that it can affect the buccal membranes. The fragile bullae form rapidly, break early, and heal centrally, leaving crusted erosions.

L02.- Cutaneous abscess, furuncle and carbuncle

An abscess is a collection of pus under the skin resulting from an acute or chronic localized infection associated with tissue destruction. An abscess is an infection caused by streptococci, staphylococci, or other organisms. Those occurring in the integumentary system are called cutaneous abscesses. Signs and symptoms of other cellulitis and abscess include edema, warmth, redness, pain, and interference with function. Often a cutaneous abscess requires incision and drainage to heal appropriately. Carbuncles and furuncles are infections caused by aerobic or anaerobic bacterial organisms. A furuncle, more commonly known as a boil, is a localized skin infection typically caused by the *Staphylococcus aureus* bacterium. A furuncle is a specific type of abscess that usually begins in a gland or hair follicle, where a core of dead tissue is formed, causing pain, redness, and swelling. The dead tissue may simply reabsorb into the system, which resolves the problem, or it may spontaneously extrude itself. In some instances, surgical removal of the

Chapter 18: Symptoms, Signs and Abnormal Clinical and Laboratory Findings, Not Elsewhere Classified (R00-R99)

This chapter includes symptoms, signs, and abnormal results of laboratory or other investigative procedures, as well as ill-defined conditions for which there are no other, more specific diagnoses classifiable elsewhere.

In general, codes from this chapter are used to report symptoms, signs, and ill-defined conditions that point with equal suspicion to two or more diagnoses or represent important problems in medical care that may affect management of the patient. In addition, this chapter provides codes to classify abnormal findings that are reported without a corresponding definitive diagnosis. Codes for such findings can be located in the Alphabetic Index under such terms as "Abnormal, abnormality, abnormalities," "Decrease, decreased," "Elevation," and "Findings, abnormal, inconclusive, without diagnosis."

Codes from this chapter also are used to report symptoms and signs that existed on initial encounter but proved to be transient and without a specified cause. Also included are provisional diagnoses for patients who fail to return for further investigation, cases referred elsewhere for further investigation before being diagnosed, and cases in which a more definitive diagnosis was not available for other reasons.

Do not assign a code from this chapter when the symptoms, signs, and abnormal findings pertain to a definitive diagnosis. For example, a patient with acute appendicitis would not need additional codes for abdominal pain and abdominal rigidity. These signs and symptoms are integral to acute appendicitis and add no pertinent information regarding the patient's condition and do not alter the course of treatment for acute appendicitis.

However, a code from this chapter may be used to report symptoms, signs, and abnormal findings that pertain to a particular clinical diagnosis if they represent important problems in medical care. Such problems may be useful to record because they may affect length of stay or level of nursing care and/or monitoring. Such problems also may require additional diagnostic or clinical evaluation or may affect treatment plans. In these cases, list the definitive condition as the principal or first-listed diagnosis and the symptoms secondarily.

List as a secondary diagnosis any symptoms, signs, and abnormal findings that are not integral to the principal diagnosis but provide important clinical information. For example, a patient with benign prostatic hypertrophy admitted in acute urinary retention might have acute urinary retention listed as a secondary diagnosis. Acute urinary retention is not integral to the disease process for benign prostatic hypertrophy, and it may alter the course of treatment. Acute urinary retention can be viewed as an "important medical problem" when the medical record documentation shows the need for clinical evaluation or diagnostic procedures to rule out pathology other than benign prostatic hypertrophy as the etiology. Therapeutic treatment may also be affected by the acute urinary retention.

The chapter is broken down into the following code blocks:

R00-R09	Symptoms and signs involving the circulatory and respiratory systems
R10-R19	Symptoms and signs involving the digestive system and abdomen
R20-R23	Symptoms and signs involving the skin and subcutaneous tissue
R25-R29	Symptoms and signs involving the nervous and musculoskeletal systems
R30-R39	Symptoms and signs involving the genitourinary system

R40-R46	Symptoms and signs involving cognition, perception, emotional state and behavior
R47-R49	Symptoms and signs involving speech and voice
R50-R69	General symptoms and signs
R70-R79	Abnormal findings on examination of blood, without diagnosis
R80-R82	Abnormal findings on examination of urine, without diagnosis
R83-R89	Abnormal findings on examination of other body fluids, substances and tissues, without diagnosis
R90-R94	Abnormal findings on diagnostic imaging and in function studies, without diagnosis
R97	Abnormal tumor markers
R99	Ill-defined and unknown cause of mortality

Symptoms and Signs Involving the Circulatory and Respiratory Systems (R00-R09)

Symptoms associated with the circulatory system may be associated with the conduction system that regulates heart rate, the heart muscle (myocardium) and the strength of muscle contractions, the heart valves, and blood pressure within the blood vessels. Symptoms associated with the respiratory system include the rate, rhythm, and abnormal sounds associated with breathing; levels of oxygen available to the organs and tissues of the body; and respiratory secretions. Pain symptoms centered in the throat and chest are also classified here.

The categories in this code block are as follows:

R00	Abnormalities of heart beat
R01	Cardiac murmurs and other cardiac sounds
R03	Abnormal blood-pressure reading, without diagnosis
R04	Hemorrhage from respiratory passages
R05	Cough
R06	Abnormalities of breathing
R07	Pain in throat and chest
R09	Other symptoms and signs involving the circulatory and respiratory system

R00.- Abnormalities of heart beat

Symptoms classified here are associated with heart rate and rhythm.

R00.0 Tachycardia, unspecified

Tachycardia is a heart rate greater than 100 beats per minute, which is caused by the heart making an effort to deliver more oxygen to the body tissues by increasing the rate at which blood passes through the vessels. Usually the patient complains of palpitations or racing of the heart. Tachycardia may be the result of excitement, exercise, pain, or fever, as well as the use of caffeine and tobacco. However, it may be an early sign of a life-threatening disorder such as cardiogenic or septic shock.

R00.1 Bradycardia, unspecified

A normal heart rate is 60 to 100 beats per minute. Bradycardia is an abnormally slow heart rate. When the heart rate is abnormally slow, it may adversely affect the amount of oxygen-rich blood available to the organs and tissues of the body, although some individuals do not

Chapter 19: Injury, Poisoning and Certain Other Consequences of External Causes (S00-T88)

This chapter is divided into two sections. Section S covers different types of injuries related to single body regions, excluding foreign bodies in natural orifices, burns, and corrosions. Types of injuries in the S section range from minor injuries, such as contusions, cuts, and abrasions, to more severe injuries, such as fractures and penetrating wounds, to life-threatening injuries, such as brain and spinal cord injuries and injuries to internal organs. Section T covers injuries to unspecified body parts; foreign bodies in natural orifices; burns and corrosions; poisoning, adverse effects, and underdosing of drugs, medicaments, and biological substances; toxic effects; effects of external causes, such as radiation, heat, light, cold, asphyxiation, and other external causes; and complications of medical care.

S Codes

Injuries are classified first into code blocks by general anatomic site or region. Within each code block injuries are classified by type, such as open wound, fracture, dislocation, nerve injury, blood vessel injury, and amputation. Each type of injury is subclassified more specifically as to type and site. Some injuries such as fractures are classified based on multiple factors related to the injury.

Fractures

A fracture is a break in a bone resulting from two possible causes: the direct or indirect application of undue force against the bone and pathological changes resulting in spontaneous fractures. This chapter includes only those fractures that have arisen as a result of an injury. It includes delayed healing and nonunions of fractured bones. In the case of a fracture, the type of fracture (e.g., displaced or nondisplaced, open or closed) and the episode of care are components of the code.

Closed fractures are contained beneath the skin, while open or compound fractures connote an associated open wound. Open fractures are always compound, with a wound leading to the fracture or the broken bone ends protruding through the skin. There is a high risk of infection with open fractures since the tissues are exposed to contaminants.

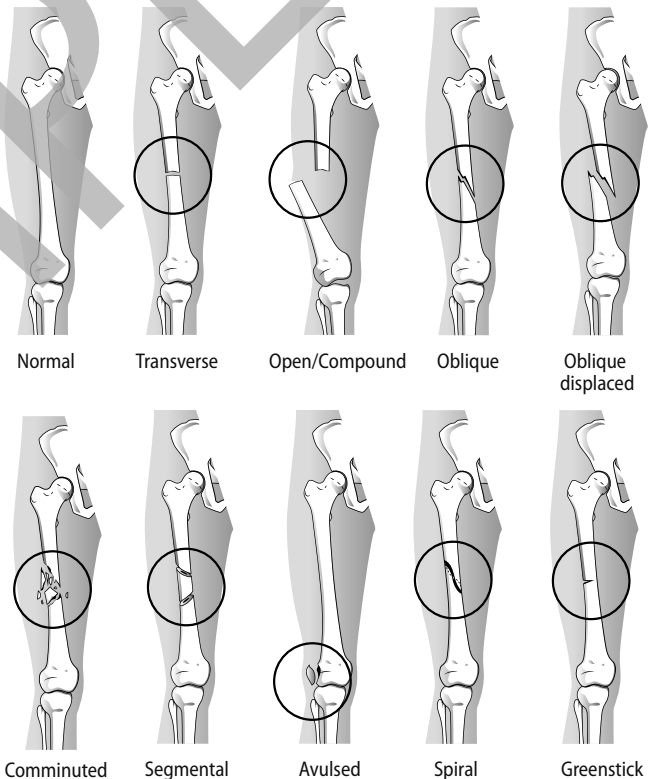
Specific terminology is used to describe fractures that pertain to bones in a particular part of the body. Those terms are defined in their respective subcategories. The following fracture types and definitions are used across many areas of the body, especially the extremities:

- Comminuted:** Bone is fractured, splintered, or shattered into multiple pieces, contains small bone fragments, usually caused by severe force
- Greenstick:** Incomplete fracture, bone bends and cracks, common in young, flexible bones of children
- Oblique:** Fracture at a diagonal angle across the bone shaft
- Physeal:** Pediatric fractures of the growth plate or physis. Salter-Harris classification system is a method of describing the involvement of the physis, metaphysis, and epiphysis of the fracture
- Segmental:** Bone is broken in two places leaving at least one segment unattached to the body of bone
- Spiral:** Also called a torsion fracture, caused by a twisting force resulting in a diagonal fracture around and through the bone
- Transverse:** Fracture straight across the bone at a right angle to the long axis of the bone

The codes for fractures capture the type of encounter and whether the fracture is open or closed; open fractures are broken down further by the type of fracture based on the Gustilo classification. The Gustilo classification describes the severity of open fracture and soft tissue injury. Following are the definitions for open fractures as defined by the Gustilo classification:

- Type I:** Low energy injury, clean wound less than 1 cm
- Type II:** Wound is more than 1 cm with moderate soft tissue damage
- Type III:** High energy wound, greater than 1 cm with extensive soft tissue damage, and subclassified to IIIA, IIIB, and IIIC
- Type IIIA:** Adequate soft tissue coverage despite extensive soft tissue damage
- Type IIIB:** Inadequate soft tissue coverage usually with severe wound contamination
- Type IIIC:** Type III open fracture associated with arterial injury

Fracture Types



Focus Point

Many subcategories identify whether the fracture is displaced or nondisplaced. A fracture not indicated as nondisplaced or displaced should be classified to displaced.

The seventh character for an initial encounter specifies whether the fracture is open or closed. If unspecified, the default is closed.

The majority of codes in this chapter require seventh-character extensions. When consulting the Alphabetic Index, it is imperative to confirm each code in the Tabular List. Refer back to the beginning of the

Chapter 22: Codes for Special Purposes (U00–U85)

Provisional Assignment of New Diseases of Uncertain Etiology or Emergency Use (U00–U49)

U07.0 Vaping-related disorder

Vaping involves the use of a device such as an e-cigarette, vape pen, mod, or tank to heat a small amount of liquid to the point that it turns into a vapor that can be inhaled. Most vape liquids contain base ingredients such as glycerol and propylene glycol that create the vapor, and many also contain nicotine, tetrahydrocannabinol (THC) and cannabinoid (CBD) oils, and other substances such as artificial flavors and additives. When the chemicals combine with the base ingredient solvents, potentially harmful byproducts known as acetals are formed. Previously known as VAPI (vaping associated pulmonary illness), e-cigarette or vaping product use-associated lung injury (EVALI) is a lung disease whose symptoms may include shortness of breath and fever, while some patients experience severe, sometimes fatal, lung infections.

Focus Point

When assigning the code for a vaping-related disorder, use additional codes to identify manifestations. These may include abdominal pain, acute respiratory distress syndrome, diarrhea or weight loss, drug-induced interstitial lung disorder, or lipoid pneumonia.

Associated respiratory signs and symptoms due to vaping, such as cough, shortness of breath, etc., are not coded separately when a definitive diagnosis has been established. However, it would be appropriate to code separately any non-respiratory gastrointestinal symptoms, such as diarrhea and abdominal pain.

U07.1 COVID-19

COVID-19, which may also be documented as novel coronavirus disease 2019 or coronavirus-19, is a viral respiratory infection whose manifestations may range from mild symptoms to severe illness and death. Based on the incubation period of the virus, symptoms such as cough, fever, and shortness of breath may appear two to 14 days following exposure. Those considered at a higher risk for developing severe illness include:

- Persons aged 65 years and older
- Those living in a long-term care facility or a nursing home
- Those of any age who have serious underlying medical conditions or conditions that are not well-controlled, such as cancer, chronic lung disease, diabetes, immunocompromised systems from solid organ transplant, kidney failure, liver disease, moderate to severe asthma, obesity (body mass index of 30 or higher), serious cardiac conditions, and sickle cell disease

The CDC has developed a real-time reverse transcription-polymerase chain reaction (rRT-PCR) test that can diagnose the disease. To suppress the spread of this virus, the CDC recommends preventive actions, including:

- Avoiding close contact with people who are sick within the home
- Avoiding contact with eyes, nose, and mouth with unwashed hands
- Covering the mouth and nose when coughing or sneezing
- Covering the mouth and nose with a cloth face covering when around others
- Frequent cleaning and disinfecting of touched objects or surfaces
- Hand washing with soap and water for at least 20 seconds or an alcohol-based hand sanitizer

- Maintaining a six-foot distance from people outside the home
- Staying at home when sick

Focus Point

When reporting a diagnosis of COVID-19, U07.1 should be listed first with additional codes for any manifestations, such as pneumonia, multisystem inflammatory disease (MIS), or acute respiratory distress syndrome (ARDS), applied as secondary diagnoses. It is inappropriate to assign U07.1 to conditions documented as unspecified coronavirus infection (B34.2), coronavirus as the cause of diseases classified elsewhere (B97.2-), or pneumonia due to SARS-associated coronavirus (J12.81).

Focus Point

If COVID-19 fails to meet the definition of principal or first-listed diagnosis (e.g., it develops after admission), assign U07.1 as a secondary diagnosis.

Focus Point

When the reason for the encounter/admission is a non-respiratory manifestation (e.g., viral enteritis) of COVID-19, assign code U07.1 COVID-19, as the principal/first-listed diagnosis and assign codes for the non-respiratory manifestations as additional diagnoses. This is consistent with guideline I.C.18.b, "Codes for signs and symptoms may be reported in addition to a related definitive diagnosis when the sign or symptom is not routinely associated with that diagnosis."

U09.9 Post COVID-19 condition, unspecified

This code enables establishment of a link with COVID-19 and is used to report healthcare encounters related to post-COVID conditions and post-acute sequelae of COVID-19. Post-COVID conditions include a wide range of physical and mental health conditions experienced by some patients that are present four or more weeks after SARS-CoV-2 infection, including patients who initially only had mild or asymptomatic acute infection.

Focus Point

Code first the specific condition related to COVID-19 if known, such as chronic respiratory failure (J96.1-), loss of smell (R43.8), loss of taste (R43.8), multisystem inflammatory syndrome (MIS-A, MIS-C)(M35.81), pulmonary embolism (I26.-), pulmonary fibrosis (J84.10).

Focus Point

This code is not to be used in cases that are still presenting with active COVID-19. However, an exception is made in cases where a patient has a new acute re-infection with COVID-19, occurring in conjunction with a condition related to a prior COVID-19 infection. Codes for the specific conditions associated with the previous COVID-19 infection and codes for manifestations of the new active (current) COVID-19 infection should also be assigned.