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Introduction

Coding is a complicated business. It’s not enough to have a current copy of a CPT® book. Medical coders also need dictionaries and specialty texts if they are to accurately translate physicians’ operative reports or patient charts into CPT codes.

That’s why Optum originally developed Coders’ Desk Reference—now known as Coders’ Desk Reference for Procedures—to provide a resource with answers to CPT coding questions. We polled the medical reimbursement community and our technical staff to determine the issues causing bottlenecks in a coder’s workload.

We know that experienced coders are frustrated by limited definitions accompanying many CPT codes. Beginning coders need guidelines on the use of CPT codes and basic information about medical and reimbursement issues. Everyone requires up-to-date information about the anticipated changes in procedural coding.

CODERS’ DESK REFERENCE FOR PROCEDURES (CDR) answers the questions of both experienced and novice medical coders. Coders, physicians, registered nurses, physician assistants, and physical therapists contributed to the technical information contained in CDR. The result is a compendium of answers to a wide variety of CPT coding questions.

Since the first release of CDR in 1995, coders’ corrections, suggestions, and tips have been incorporated into every printing, making this book as informative and useful as possible. Changes reflecting the dynamic world of coding are ongoing, and Optum encourages input for inclusion in future editions of the book. Information in CDR has been updated to reflect 2023 CPT codes.

Format
CDR is divided into convenient sections for easy use, with each section organized in alphabetic or numeric order. Simply access the section by thumbing through the convenient tabbing system to find the specific item of interest.

Using CPT Codes
For the new coder, and even for the veteran, this chapter provides an overview of the CPT book: what it is and how best to use this coding system for identifying procedures.

Using CPT Modifiers
Modifiers augment CPT codes to the satisfaction of private and government payers. Optum coding experts interpret CPT modifiers and identify their advantage in reimbursement.

Using E/M Codes
Although some of the most commonly used codes by physicians of all specialties, evaluation and management (E/M) codes are amongst the least understood. These codes, introduced in the 1992 CPT book, were designed to increase accuracy and consistency in the reporting of non-procedural encounters. This section contains the official 2023 guidelines.

Place of Service/Type of Service
This section contains place-of-service codes that should be used on professional claims and type-of-service codes used by the Medicare Common Working File.

Reimbursement Terms
In order to get reimbursed in a timely manner, it is important to have a clear understanding of the terminology used by major insurers and the federal government. This section includes up-to-date terminology that will help coders have a better understanding of the complex reimbursement climate.

Clinical Abbreviations, Prefixes, Suffixes, and Acronyms
The medical profession has its own shorthand for documentation. Here, acronyms, abbreviations, and symbols commonly seen on operative reports or medical charts are listed for easy reference.

The uniquely efficient language of medicine is based on prefixes and suffixes attached to root words to modify the meaning. Medical prefixes and suffixes evolved from the Greek and Latin used by pioneering physicians.

Procedural Eponyms
What is the Mitrofanoff operation? What is the Binet test? Eponyms honor the developer of a procedure or test, but do little to clarify what the procedure is. Subject matter experts have researched the procedural eponyms found in the index of the CPT book or used by surgeons and other medical professionals.
Using CPT® Modifiers

Modifiers allow coders to indicate that a service was altered in some way from the stated CPT® description without actually changing the basic definition of the service. Modifiers are considered an essential component of accurate coding. Some modifiers impact reimbursement and others identify special circumstances. Modifiers can indicate the following:

- A service or procedure represents only a professional or technical component
- A service or procedure was performed by more than one physician
- Only part of a service was performed
- An adjunctive service was performed
- A bilateral procedure was performed
- A service or procedure was provided more than once
- Unusual events occurred
- A procedure or service was more difficult or took longer or was less involved or required less time

Physical status modifiers, P1-P6, specifically used for anesthesia services, are not discussed in this chapter. HCPCS modifiers, beginning with an alpha character, may be appended to CPT codes in specific circumstances and are also not discussed in this chapter.

22 Increased Procedural Services
Modifier 22 is not appropriate for CPT codes with the term “simple” as part of the code description, nor should it be appended to a code for an E/M service. Rather, modifier 22 is used to indicate that a procedure was complicated, complex, difficult, or took significantly more time than usually required by the provider to complete the procedure. Documentation, including notations to the amount of time involved, should be provided with the billing and kept in the medical record when this modifier is used. Time notations in the documentation should include start and stop times, as well as the total amount of additional time required to complete the procedure. The provider should clearly state specifically, and in detail, what issues made the procedure more complex rather than simply using vague statements such as, “The patient had a lot of adhesions.” When modifier 22 is used, an operative report should always be attached to the claim.

The fee reported for modifier 22 should be the usual and customary amount for the procedure plus an additional amount for the unusual circumstances. If modifier 22 is appended to a code that is not the primary code, and modifier 51 has been appended, modifier 22 should be paid in addition to the cut contract rate paid for the code.

Modifier 22 often produces an automatic review or audit by payers. If the operative report attached to the claim does not indicate appropriate use of the modifier, the increase in payment will be denied. Periodic training for all involved in the coding process is important from both a legal and reimbursement perspective.

Because modifier 22 is often used when complications are encountered during surgical procedures, medical necessity is substantiated by additional diagnostic codes that identify the complication. These diagnostic codes should reflect the operative condition and the complication(s) encountered during the surgery.

23 Unusual Anesthesia
This modifier is used by anesthesiologists to indicate that this procedure is normally performed under local anesthesia or regional block but due to unusual circumstances, general anesthesia is needed. This modifier is not appropriate for use with codes that include the term “without anesthesia” in the descriptor, or for procedures normally performed under general anesthesia.

24 Unrelated Evaluation and Management Service by the Same Physician or Other Qualified Health Care Professional During a Postoperative Period
This modifier reports that an unrelated E/M service was provided by the surgeon within the global period. Use of this modifier needs to be correlated to a diagnosis code that is unrelated to the surgical diagnosis code.

25 Significant, Separately Identifiable Evaluation and Management Service by the Same Physician or Other Qualified Health Care Professional on the Same Day of the Procedure or Other Service
This modifier indicates that on the same day a procedure or service identified by a CPT code is performed, the patient’s condition required a significant, separately identifiable E/M code beyond the usual level of service required for the procedure. In addition, the modifier denotes that the patient’s condition required services that were over and above
Evaluation and Management (E/M) Services Guidelines

E/M Guidelines Overview
The E/M guidelines have sections that are common to all E/M categories and sections that are category specific. Most of the categories and many of the subcategories of service have special guidelines or instructions unique to that category or subcategory. Where these are indicated, eg, “Hospital Inpatient and Observation Care,” special instructions are presented before the listing of the specific E/M services codes. It is important to review the instructions for each category or subcategory. These guidelines are to be used by the reporting physician or other qualified health care professional to select the appropriate level of service. These guidelines do not establish documentation requirements or standards of care. The main purpose of documentation is to support care of the patient by current and future health care team(s). These guidelines are for services that require a face-to-face encounter with the patient and/or family/caregiver. (For 99211 and 99281, the face-to-face services may be performed by clinical staff.)

In the Evaluation and Management section (99202-99499), there are many code categories. Each category may have specific guidelines, or the codes may include specific details. These E/M guidelines are written for the following categories:

- Office or Other Outpatient Services
- Hospital Inpatient and Observation Care Services
- Consultations
- Emergency Department Services
- Nursing Facility Services
- Home or Residence Services
- Prolonged Service With or Without Direct Patient Contact on the Date of an Evaluation and Management Service

Classification of Evaluation and Management (E/M) Services
The E/M section is divided into broad categories, such as office visits, hospital inpatient or observation care visits, and consultations. Most of the categories are further divided into two or more subcategories of E/M services. For example, there are two subcategories of office visits (new patient and established patient) and there are two subcategories of hospital inpatient and observation care visits (initial and subsequent). The subcategories of E/M services are further classified into levels of E/M services that are identified by specific codes.

The basic format of codes with levels of E/M services based on medical decision making (MDM) or time is the same. First, a unique code number is listed. Second, the place and/or type of service is specified (eg, office or other outpatient visit). Third, the content of the service is defined. Fourth, time is specified. (A detailed discussion of time is provided in the Guidelines for Selecting Level of Service Based on Time.)

The place of service and service type are defined by the location where the face-to-face encounter with the patient and/or family/caregiver occurs. For example, service provided to a nursing facility resident brought to the office is reported with an office or other outpatient code.

New and Established Patients
Solely for the purposes of distinguishing between new and established patients, professional services are those face-to-face services rendered by physicians and other qualified health care professionals who may report evaluation and management services. A new patient is one who has not received any professional services from the physician or other qualified health care professional or another physician or other qualified health care professional of the exact same specialty and subspecialty who belongs to the same group practice, within the past three years.

An established patient is one who has received professional services from the physician or other qualified health care professional or another physician or other qualified health care professional of the exact same specialty and subspecialty who belongs to the same group practice, within the past three years. See Decision Tree for New vs Established Patients.

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Contains new or revised text
Clinical Abbreviations, Prefixes, Suffixes, and Acronyms

The acronyms, abbreviations, prefixes, suffixes, and symbols used by health care providers speed communications. The following list includes the most often seen acronyms, abbreviations, and symbols. In some cases, abbreviations have more than one meaning. Multiple interpretations are separated by a slash (/). Abbreviations of Latin phrases are punctuated.

-agra: Severe pain.
-algia: Pain.
-ase: Denoting an enzyme.
-asthenia: Weakness.
-atresia: Closure, occlusion.
-blast: Incomplete cellular development.
-centesis: Puncture.
-cephal: Relating to the head.
-cle: Small or little.
-cyte: Having to do with cells.
-dactyl: Relating to the fingers or toes.
-desis: Binding or fusion.
-ectomy: Excision, removal.
-emia: Blood.
-ferous: Produces, causes, or brings about.
-fuge: Drive out or expel.
-genic: Production, causation, generation.
-gram: Drawn, written, and recorded.
-graphic: Written or drawn.
-ia: State of being, condition (abnormal).
-iasis: Condition.
-itis: Inflammation.
-lysis: Release, free, reduction of.
-lytic: Destroy, breakdown.
-metry: Scientific measurement.
-odynia: Indicates pain or discomfort.
-oid: Indicates likeness or resemblance.
-ology: Study of.
-oma: Tumor.
-opathy: Relating to disease.
-opexy: Surgical fixation.
-oplasy: Surgical repair.
-orrhaphy: Suturing.
-orrhagia: Hemorrhage.
-orrhaphy: Suturing.
-oscopy: To examine.
-osis: Condition, process.
-otomy: Indicates a surgically created artificial opening.
-otomous: Indicates a cutting.
-othesis: Crushing, destroying.
-phagous: Indicates fixed or joined together.
-pathic: Indicates weakness.
-plasia: Indicates a feeling, diseased condition, or therapy.
-plasty: Indicates a deficiency, less than normal.
-pexy: Fixation.
-philia: Inordinate love of or craving for something.
-phobia: Abnormal fear of or aversion to.
-plasia: Indicates growth, growing.
-plasty: Indicates surgically formed or molded.
-pneumonitis: Indicates a stroke or paralysis.
-pnea: Relating to breath, breathing.
-poietic: Indicates producing or making.
-praxis: Indicates activity, action, condition, or use.
-rhage: Indicates bleeding or other fluid discharge.
-rhaphy: Indicates a suture or seam joining two structures.
-rhagia: Indicates an abnormal or excessive fluid discharge.
-rhesis: Splitting or breaking.
-sarcoma: Malignant tumor of flesh or connective tissue.
-spasm: Contraction.
-taxy: Arrangement, grouping.
-tomy: Incision.
-trophy: Relating to food or nutrition.
The medical custom of honoring a popular procedure’s originator by name may prove to be problematic for the coder, who may have no trouble coding a Marshall-Marchetti but be faced with choosing one of the many Maze procedures.

The following list includes many of the procedures described by eponym in operative notes or other medical documentation; several are also included in the CPT® book.

**Abbe-Estlander procedure**
- 40527 Excision of lip; full thickness, reconstruction with cross lip flap (Abbe-Estlander)
- 40761 Plastic repair of cleft lip/nasal deformity; with cross lip pedicle flap (Abbe-Estlander type), including sectioning and inserting of pedicle

**Adson test**
- 95870 Needle electromyography; limited study of muscles in 1 extremity or non-limb (axial) muscles (unilateral or bilateral), other than thoracic paraspinal, cranial nerve supplied muscles, or sphincters

**Altemeier procedure**
- 45130 Excision of rectal procidentia, with anastomosis; perineal approach
- 45135 Excision of rectal procidentia, with anastomosis; abdominal and perineal approach

**Anderson’s method of tibial lengthening**
- 27715 Osteoplasty, tibia and fibula, lengthening or shortening

**Aries-Pitanguy mammoplasty**
- 19318 Breast reduction

**Babcock’s operation**
- 37700 Ligation and division of long saphenous vein at saphenofemoral junction, or distal interruptions

Varicose veins are eliminated using a long probe and tying the end of the vein to it to draw out the vein by invagination.

**Baker tube**
- 44021 Enterotomy, small intestine, other than duodenum; for decompression (eg, Baker tube)

Tube placed into the jejunum or small bowel for decompression or extensive adhesions.

**Bankart procedure**
- 23455 Capsulorrhaphy, anterior, with labral repair (eg, Bankart procedure)

Procedure used to treat recurrent dislocation of the shoulder requiring reconstruction of the avulsed capsule and labrum at the glenoid lip.

**Barany caloric test**
- 92533 Caloric vestibular test, each irrigation (binaural, bithermal stimulation constitutes 4 tests)

Extent of nystagmus is determined by irrigating the external auditory meatus with hot or cold water.

**Barkan operation**
- 63820 Goniotomy

Technique corrects glaucoma by opening Schlemm’s canal.

**Barsky’s operation**
- 26580 Repair cleft hand

Cleft hand repaired by closing the cleft, bringing the ring and index fingers closer together, and correcting webbing between the fingers.

**Batch-Spittler-McFaddin operation**
- 27598 Disarticulation at knee

Leg is severed at the knee joint, which offers an alternative to severing a long bone.

**Belsey procedure**
- 43328 Esophagogastric fundoplication partial or complete; thoracotomy

- 43334 Repair, paraesophageal hiatal hernia (including fundoplication), via thoracotomy, except neonatal; without implantation of mesh or other prosthesis
or a tissue expander is performed with flap reconstruction, it is reported separately.

19367-19369

The physician performs a transverse rectus abdominis myocutaneous flap (TRAM) procedure for breast reconstruction. The physician first designs and then cuts a skin island flap on the lower abdominal wall. A superior skin and fat flap is elevated off the rectus abdominis muscle. A transverse incision is made in the rectus sheath and the muscle is divided and elevated, keeping the superior epigastric arteries intact for blood supply. Once the muscle is elevated, the physician makes an incision through the chest skin. This is also elevated, creating a pocket for the muscle flap. A connecting tunnel is made between the elevated chest skin and the inferiorly positioned flap. The flap is passed superiorly under the tunnel of tissue, placed into its new position, and sutured, after contouring a breast. The abdominal wall is closed by reapproximating the remaining anterior rectus muscle to the remaining lateral muscle and sheath. Skin edges are brought together and sutured in layers. Suction drains are also placed. Report 19368 if microvascular anastomosis for connecting blood vessels is used. Report 19369 if the muscle/skin complex has two pedicles or both sides of the rectus abdominis are elevated (bilateral or hemiflaps). These codes include flap harvesting, donor site closure, and flap insertion and shaping. If placement of a breast implant or a tissue expander is performed with flap reconstruction, it is reported separately.

19370

The physician revises a peri-implant capsule of the breast by making an incision in the skin of the breast, at the site of a mastectomy scar, in the skin fold beneath the breast, or around the nipple. In a capsulotomy, the physician uses a cautery knife to cut into the area of fibrous scarring associated with a breast implant. Incisions are made into the scar (contracted capsule) to cut around its circumference and enlarge the pocket in which the implant is placed. Loosening the capsule relieves pain and tightness caused by the contracture. No tissue is removed. The incision is repaired with layered closure. A capsulorrhaphy reshapes or recontours the capsule so that the capsule fits back within the sutures surrounding the implant while the capsulectomy described by this code removes a portion of the capsule.

19371

The physician performs a peri-implant capsulectomy on the breast. An incision is made in the skin of the breast at the site of a mastectomy scar, in the skin fold beneath the breast, or around the nipple. The physician uses a cautery knife to cut into the area of fibrous scarring associated with a breast implant. The contracted capsule is excised from the breast tissue and the implant, along with all intracapsular contents. If the removal of extracapsular silicone in cases of a ruptured silicone implant is performed during the same operative session, this is reported separately. The incision is repaired with layered closure.

19380

Revision is done on a reconstructed breast, usually to correct a problem with asymmetry. This may require substantial tissue removal, reinsertion or readvancement of flaps in autologous reconstruction, or in implant-based reconstruction, significant revision of the capsule in conjunction with soft tissue excision. The physician makes an incision in the breast skin along the areola or at the fold under the breast or in prior surgical incisions. Tissue therein may be rearranged or secured with sutures to revise the shape of the reconstructed breast. An existing breast implant may be replaced with an implant of a different configuration. Excess skin or tissue from the reconstructed breast may be removed. Once the breast has been revised to its desired shape, the physician repairs the incision with layered closure.

19396

The physician creates a custom breast implant model of moulage that closely resembles the remaining breast configuration of a mastectomy patient. From this a custom breast implant will be created.

Musculoskeletal

20100-20103

The physician explores a penetrating wound in the operating room, such as a gunshot or stab wound, to help identify damaged structures. Nerve, organ, and blood vessel integrity is assessed. The wound may be enlarged to help assess the damage. Debridement, removal of foreign bodies, and ligation or coagulation of minor blood vessels in the subcutaneous tissues, fascia, and muscle are also included in this range of codes. Damaged tissues are debrided and repaired when possible. The wound is closed (if clean) or packed open if contaminated by the penetrating body. Report 20100 for exploration of a neck wound. Report 20101 for exploration of a chest wound. Report 20102 for exploration of an abdomen, flank, or back wound. Report 20103 for exploration of a wound to an extremity.

20150

Excision of the epiphyseal bar is a procedure performed to treat a partial epiphyseal arrest in a patient with significant remaining growth in a long bone, such as the femur, tibia, or fibula. This is caused, in many cases, by an injury or infection involving the epiphyseal plate (growth plate). The patient is placed in the supine position and a tourniquet is applied to the proximal thigh and raised to the appropriate pressure. For excision of the distal femur or proximal tibia, the knee is extended on a radiolucent operating table with the intention of resecting two rectangular areas, one on the medial side and one on the lateral side of the bone. Under fluoroscopic image intensification, a stab wound incision is made laterally or medially at the level of the growth plate. On one
Cardiovascular

33016
The physician drains fluid from the pericardial space. The physician may perform this procedure using anatomic landmarks or under fluoroscopic or echocardiographic (ultrasound) guidance, which is not separately reportable. The physician places a long needle below the sternum and directs it into the pericardial space. When pericardial fluid flows back through the needle, the physician exchanges the needle for a drainage catheter. The physician removes as much pericardial fluid as is required, removes the needle or catheter, and dresses the wound.

33017-33018
The physician drains fluid from the pericardial space. The physician may perform these procedures using anatomic landmarks or under fluoroscopic or echocardiographic (ultrasound) guidance, which is included in these codes and not reported separately. The physician places a long needle percutaneously below the sternum and directs it into the pericardial space. When pericardial fluid flows back through the needle, the physician passes a guidewire through the needle into the pericardial space. The physician exchanges the needle over the wire for an indwelling drainage catheter. The physician attaches the catheter to a drainage bag, sutures the indwelling catheter into place on the chest wall, and dresses the wound. Report 33017 when the procedure is performed on ages 6 years and older without a congenital cardiac anomaly. Report 33018 when the procedure is performed on newborns to 5 years of age with a congenital cardiac anomaly, such as dextrocardia, heterotaxy, mesocardia, or a single ventricle anomaly, or for any age within the first 90-day postop period following surgical repair of a congenital cardiac anomaly.

33019
The physician drains fluid from the pericardial space. The physician performs this procedure under fluoroscopic guidance, which is included in this code and not reported separately. The physician places a long needle percutaneously below the sternum and directs it into the pericardial space. When pericardial fluid flows back through the needle, the physician passes a guidewire through the needle into the pericardial space. The physician exchanges the needle over the wire for an indwelling drainage catheter. The physician attaches the catheter to a drainage bag, sutures the indwelling catheter into place on the chest wall, and dresses the wound.

33020
The physician removes a clot or foreign body from the pericardial space. The physician performs a midline sternotomy, incising skin, fascia, and the sternum. The pericardium is incised and the clot or foreign body is removed. The pericardium is repaired loosely, leaving gaps for blood and fluid to drain into the pleural space. The sternum is reanastomosed with sternal wires and the skin is sutured in layers. In a less invasive approach for smaller clots or foreign matter, a needle is inserted through the skin under the sternum until it reaches the pericardial sac guided by fluoroscopy or echocardiography. A catheter is inserted to retrieve foreign matter or a catheter with a balloon attachment may also be used. The inflation of the balloon creates an opening within the desired location. The balloon catheter is removed and replaced with another catheter used to retrieve the foreign matter or clot.

33025
The physician gains access to the pericardium in one of three ways: an incision into the subxiphoid space, the chest wall (thoracotomy), or thorascopically. The physician may make an incision in the pericardium or use electrocautery to open the pericardium large enough to allow drainage of pericardial fluid into the pleural space. The physician may require the use of a clamp or forceps to retract the surrounding tissues; however, if the pericardium is distended, a needle aspiration may be utilized under thorascopic guidance. The physician closes the sternal or chest wall incision and dresses the wound. The physician may leave chest tubes and/or a mediastinal drainage tube in place following the procedure.

33030-33031
The physician gains access to the pericardium through an incision through the sternum (median sternotomy). The physician cuts away most or all of the pericardial tissue while the heart is still beating (without cardiopulmonary bypass), taking care to leave the phrenic nerves intact. The physician closes the sternal or chest wall incision and dresses the wound. The physician may leave chest tubes and/or a mediastinal drainage tube in place following the procedure. Report 33031 if the procedure is performed with cardiopulmonary bypass.

33050
The physician gains access to the pericardium through an incision through the sternum (median sternotomy) or the chest wall (lateral thoracotomy). If cardiopulmonary bypass is performed, the physician places cardiopulmonary bypass catheters (usually through incisions in the right atrial appendage and aorta or femoral artery). The physician stops the heart by infusing cardioplegia solution into the coronary circulation. The physician cuts away the pericardial cyst or tumor. The physician takes the patient off cardiopulmonary bypass, if used, closes the surgical incisions, and dresses the sternal or chest wall wound. The physician may leave chest tubes and/or a mediastinal drainage tube in place following the procedure.

33120
Cardiopulmonary bypass is employed. Venous tubes are placed in both caval veins. The part of the heart that is opened depends on where the tumor is located. Every effort is made to avoid making an incision in any ventricular wall. After the heart is opened, the tumor is resected with a margin of normal heart tissue. Any
59855
The physician terminates a pregnancy by inducing labor with vaginal suppositories. Before using the suppositories, a laminaria, which is an applicator made of kelp or synthetic material, may be inserted in the cervix to soften and expand the cervical canal. Once the cervix is ready, the physician inserts the vaginal suppositories and labor usually results. The fetus and placenta are delivered through the vagina.

59856
The physician begins the termination of a pregnancy by inducing labor with vaginal suppositories. Before using the suppositories, a laminaria, which is an applicator made of kelp or synthetic material, may be inserted in the cervix to soften and expand the cervical canal. Once the cervix is ready, the physician inserts the vaginal suppositories and labor usually results. 59856 is used when this method fails to expel all products of conception, and a dilation and curettage and/or evacuation is used to remove the remaining tissue.

59857
The physician begins the termination of a pregnancy by inducing labor with vaginal suppositories. Before using the suppositories, a laminaria, which is an applicator made of kelp or synthetic material, may be inserted in the cervix to soften and expand the cervical canal. Once the cervix is ready, the physician inserts the vaginal suppositories and labor usually results. 59857 is used when this method fails to expel all products of conception, and a hysterotomy, through an incision in the abdominal wall and uterus, is used to remove the remaining tissue. Following removal, the incision is closed with sutures.

59866
Selective reduction is performed to eliminate one or more fetuses of a multiple pregnancy in an attempt to increase the viability of the remaining fetuses. Fetuses are usually eliminated in this procedure until only a twin or triplet pregnancy remains. Physicians most often use ultrasound guided intracardiac injection of potassium chloride to reduce the number of fetuses, although injection of potassium chloride in any part of the fetal body accomplishes the same result. When an intracardiac injection is performed, a 22 gauge spinal needle is advanced through the abdominal and uterine walls toward a cardiac echo using high-resolution ultrasound as a guide. With the needle position in the heart, a solution of potassium chloride is injected at intervals until prolonged cardiac standstill is observed. The physician withdraws the needle and redirects it into another gestational sac, as needed. The embryo(s) or fetus(es) that have been injected shrivel and decompose, leaving the remaining fetuses in utero an increased chance of surviving to term. Any sacs that remain intact are removed during delivery of the surviving fetus(es).

59870
The physician treats a hydatidiform mole (molar pregnancy) by evacuation and curettage of the uterus.

Endocrine

60000
The physician incises and drains an infected thyroglossal (also called thyrolingual) cyst in the neck caused by incomplete closure or persistence of the embryonic thyroglossal duct between the developing thyroid and the back of the tongue. After the physician incises the cyst and drains the infected fluid, the wound may be irrigated with normal saline and a drainage system inserted. The drainage tubes may be left in place. A collection unit applies gentle suction to collect fluid from the incision site.

60100
The physician removes tissue from the thyroid for examination. The physician localizes the area to be biopsied by palpation or separately reportable ultrasound. A large, hollow, bore needle is passed through skin and muscle, into the thyroid. The tissue is removed and sent for separately reportable analysis.

60200
The physician removes a cyst or adenoma from a thyroid, or transects the isthmus. The physician exposes the thyroid via a transverse cervical incision in the skin line. The platysmas are divided and the strap muscles separated in the midline. The thyroid mass is identified. Blood supply to and from the lesion is controlled and the mass is locally excised. The skin and platysmas are closed.

60210
The physician removes part of a thyroid lobe, with or without an isthmusectomy. The physician exposes the thyroid via a transverse cervical incision in the skin line. The platysmas are divided and the strap muscles separated in the midline. The superior and inferior thyroid vessels are divided in the area for resection. The thyroid parenchyma is divided and dissected with cautery dissection. The skin and platysmas are closed.
Thawing of cryopreserved tissue requires thawing in different substances for set lengths of time so as to maintain the integrity of the specimen and prevent damage by thawing too quickly. The cryovial is removed from the liquid nitrogen and placed at room temperature until ice crystals have dissolved. A waterbath is prepared at the desired temperature in which the specimen is placed. After the water bath, each specimen is placed in a series of solutions to complete the thawing process. Report 89352 for embryos, 89353 for sperm/semen, 89354 for reproductive testicular/ovarian tissue, and 89356 for oocytes.

**Proprietary Laboratory Analysis**

0001U-0363U These services are performed by a single "sole source" laboratory or for laboratory services that are cleared or approved by the Food and Drug Administration (FDA) and licensed and/or marketed to multiple providing laboratories. These services are often referred to as Proprietary Laboratory Analyses or PLA services. Correct code selection is dependent upon the service being provided and the manufacturer of the equipment.

**Medicine**

90281 This code identifies the immune globulin (Ig), human, for intramuscular use. An immune globulin is a passive immunization agent obtained from donated, pooled human plasma. Passive immunity is achieved for a short period as the antibodies received through the immune globulin are circulated through the body. The recipient's immune system is not stimulated to build its own antibodies. Report this code with the appropriate administration code.

90283 This code identifies the immune globulin (IgIV), human, for intravenous administration. An immune globulin is a passive immunization agent obtained from donated, pooled human plasma. Passive immunity is achieved for a short period as the antibodies received through the immune globulin are circulated through the body. The recipient's immune system is not stimulated to build its own antibodies. Report this code with the appropriate administration code.

90284 This code identifies the human immune globulin for use in subcutaneous infusions (SCIg). An immune globulin is a passive immunization agent obtained from donated pooled human plasma. Passive immunity is achieved for a short period as the antibodies received through the immune globulin are circulated through the body. The recipient's immune system is not stimulated to build its own antibodies. Some patients have insufficient venous access or adverse reactions to intravenous treatments, making them unsuitable candidates for traditional IgV therapy. Controlled doses of immune globulin are administered over a period of several hours through a small needle placed just under the skin. Report this code with the appropriate administration code.

90287 This code identifies the botulinum antitoxin, equine, administered by any route. The antitoxin is a passive immunizing agent derived from purified serum from previously immunized horses. The antibodies received through the antiserum are circulated through the body and neutralize toxins produced by strains of the botulinum bacteria. Report this code with the appropriate administration code.

90288 This code identifies the botulism immune globulin, human, for intravenous use. This immune globulin is a passive immunization agent that gives protection against Botulism and is obtained from donated, pooled human plasma. Passive immunity is achieved for a short period as the antibodies received through the immune globulin are circulated through the body. The recipient's immune system is not stimulated to build its own antibodies. Report this code with the appropriate administration code.

90291 This code identifies the cytomegalovirus immune globulin (CMV-IgIV), human, for intravenous use. This immune globulin is a passive immunization agent that gives protection against the Cytomegalovirus and is obtained from donated, pooled human plasma. Passive immunity is achieved for a short period as the antibodies received through the immune globulin are circulated through the body. The recipient's immune system is not stimulated to build its own antibodies. Report this code with the appropriate administration code.

90296 This code identifies the diphtheria antitoxin, equine, administered by any route. The antitoxin is a passive immunizing agent derived from purified serum from previously immunized horses. The antibodies received through the antiserum are circulated through the body and neutralize toxins produced by Corynebacterium diphtheriae. Report this code with the appropriate administration code.

90371 This code identifies the hepatitis B immune globulin (HB Ig), human, for intramuscular use. This immune globulin is a passive immunization agent that gives protection against Hepatitis B and is obtained from donated, pooled human plasma. Passive immunity is achieved for a short period as the antibodies received through the immune globulin are circulated through the body. The recipient's immune system is not stimulated to build its own antibodies. Report this code with the appropriate administration code.
more than one neurofibroma present, learning disabilities, cafe'-au-lait spots, bone deformities, Lisch nodules on the eye, and tumors on the adrenal gland, brain, or spinal cord. These characteristics are also common in type 2, along with a greater likelihood of cataracts and benign ear tumors developing on the vestibulocochlear nerve, often in both ears, which can create balance and hearing problems. Neurofibromas vary in size ranging from a small tumor arising from a skin nerve (cutaneous) to severe enlargement of an extremity, such as in cases of elephantiasis arising from a larger nerve. Destruction of neurofibromas is determined by a number of factors, including type, location, and size of the tumor. Destruction of neurofibromas may be performed via straightforward excision using a scalpel, ablation through desiccation, or vaporized via electrocautery. For patients presenting with a significant amount of neurofibromas, electrodeversion may be performed. The surgeon utilizes a device to apply electrical current to the tumor and dries out the tissues the tumor is in contact with. This process allows the surgeon to go into deeper tissue than is possible with other methods. In cases of severe neurofibromatosis, excision and electrodeversion may be performed in conjunction with each other. For more superficial tumors, fulguration and electrocautery techniques may be used. Another method of destruction may include stereotactic radiosurgery, a minimally invasive technique that destroys the tumors using highly focused beams of radiation resulting in minimal damage to the healthy tissue surrounding the tumor, as well as less side effects than the patient might experience with more traditional surgery. Report 0419T for destruction of 50 or more neurofibromas of the face, head, and neck and 0420T for destruction of 100 or more neurofibromas on the trunk or extremities.

[0714T] The physician treats benign prostatic hyperplasia (BPH) using transperineal laser ablation. Following insertion of a dedicated transrectal ultrasound probe, the physician inserts minute optical fibers percutaneously into the prostate gland. One or two fibers per lobe are typically used, depending on the prostate gland’s basal volume. Laser energy is then delivered, which heats and destroys the hyperplastic tissue.

0421T Transurethral waterjet ablation of the prostate is a minimally invasive procedure that employs an aquablation system to destroy prostatic glandular tissue using a high-speed solution of sodium chloride in water (saline) guided with exact electromechanical control using a real-time transrectal ultrasound image. The surgeon destroys the prostatic tissue by moving along a fixed, predetermined glandular tissue map, while at the same time collecting samples of prostatic tissue to analyze after the procedure has been completed. When needed, control of bleeding (hemostasis) is performed using a low power blue laser beam contained in a water column to cause