Surgery: Cardiovascular System

Page updated: September 2020

This section contains information to assist providers in billing for surgical procedures related to the cardiovascular system.

Complex Venipunctures: Age Restrictions

CPT® code 36410 may be used to bill non-routine venipunctures for recipients 3 years of age or older. Anesthesiology services and assistant surgeon services are not payable for this procedure.

Complex venipunctures for recipients younger than 3 years of age are reimbursable with CPT codes 36400 and 36405. Code 36400 is for billing complex venipuncture using the femoral vein or jugular vein and code 36405 is for billing complex venipuncture using the scalp vein. Assistant surgeon services are not payable for this procedure.

Note: Reimbursement for routine venipuncture is included in the reimbursement for laboratory procedures and is not separately reimbursable.

Implantable Infusion Pump for Regional Chemotherapy

CPT codes 36260 thru 36262 are billed for inserting, revising and removing implantable infusion pumps. These codes are restricted to procedures for the placement of intra-arterial catheters for regional chemotherapy, including Infusaid for the treatment of solid unresectable hepatic malignancies. CPT code 36260 (insertion of implantable intra-arterial infusion pump) is used to bill the surgical procedure to implant the pump and insert the intra-arterial catheter. Code 36260 requires a *Treatment Authorization Request* (TAR). This procedure is normally performed on an outpatient basis. A TAR is not required for the following codes:

CPT Code	Description
36261	Revision of implanted intra-arterial infusion pump
36262	Removal of implanted intra-arterial infusion pump

Billing for Infusion Pump

The pump must be supplied by the hospital and is reimbursable using CPT code 36260 with modifier UA or UB, depending on the type of anesthesia used. If approved for an inpatient setting, the pump must be billed under the appropriate ancillary code. A copy of the invoice showing the actual cost of the pump must be attached to the claim. The physician performing the implantation procedure will not be reimbursed for the pump.

Revascularization

HCPCS code C9764 (revascularization, endovascular, open or percutaneous, any vessel(s); with intravascular lithotripsy, includes angioplasty within the same vessel(s), when performed.

HCPCS code C9765 (revascularization, endovascular, open or percutaneous, any vessel(s); with intravascular lithotripsy, and transluminal stent placement(s), includes angioplasty within the same vessel(s), when performed.

HCPCS code C9766 (revascularization, endovascular, open or percutaneous, any vessel(s); with intravascular lithotripsy, and atherectomy, includes angioplasty within the same vessel(s), when performed.

HCPCS code C9767 (revascularization, endovascular, open or percutaneous, any vessel(s); with intravascular lithotripsy, and transluminal stent placement(s), and atherectomy, includes angioplasty within the same vessel(s), when performed).

Selective Catheter Placement

When billing for CPT code 36228 (selective catheter placement, each intracranial branch of the internal carotid or vertebral arteries, unilateral, with angiography of the selected vessel circulation and all associated radiological supervision and interpretation), reimbursement is restricted to two per side. Providers must document “different side” when billing for quantity greater than two.

Transcatheter Procedures

‹‹CPT code 33741 (transcatheter atrial septostomy [TAS] for congenital cardiac anomalies to create effective atrial flow, including all imaging guidance by the proceduralist, when performed, any method [eg., Rashkind, Sang-Park, balloon, cutting balloon, blade]) is reimbursable for primary and assistant surgeon services. Reimbursement is not allowed for more than one assistant surgeon.››

‹‹CPT code 33745 (transcatheter intracardiac shunt [TIS] creation by stent placement for congenital cardiac anomalies to establish effective intracardiac flow, including all imaging guidance by the proceduralist, when performed, left and right heart diagnostic cardiac catherization for congenital cardiac anomalies, and target zone angioplasty, when performed [eg., atrial septum, Fontan fenestration, right ventricular outflow tract, Mustard/Senning/Warden baffles]; initial intracardiac shunt) is reimbursable for primary and assistant surgeon services. Reimbursement is not allowed for more than one assistant surgeon.››

‹‹CPT code 33746 (transcatheter intracardiac shunt [TIS] creation by stent placement for congenital cardiac anomalies to establish effective intracardiac flow, including all imaging guidance by the proceduralist, when performed, left and right heart diagnostic cardiac catherization for congenital cardiac anomalies, and target zone angioplasty, when performed [eg., atrial septum, Fontan fenestration, right ventricular outflow tract, Mustard/Senning/Warden baffles]; each additional intracardiac shunt location) is reimbursable for primary and assistant surgeon services. Providers must list this code separately in addition to the code for the primary procedure. Reimbursement is not allowed for more than one assistant surgeon.››

CPT code 37217 (transcatheter placement of intravascular stent[s], intrathoracic common carotid artery or innominate artery by retrograde treatment, open ipsilateral cervical carotid artery exposure, including angioplasty, when performed, and radiological supervision and interpretation) is not reimbursable with CPT codes 35201 and 36221 thru 36227 for ipsilateral services. Providers must document when the procedure is performed on the contralateral side in the *Remarks* field (Box 80)/*Additional Claim Information* field (Box 19) on the claim or on an attachment.

CPT code 37218 (transcatheter placement of intravascular stent[s], intrathoracic common carotid artery or innominate artery, open or percutaneous antegrade approach, including angioplasty, when performed, and radiological supervision and interpretation) is reimbursable for primary and assistant surgeon services. Reimbursement is not allowed for more than one assistant surgeon.

HCPCS code C9759 (transcatheter intraoperative blood vessel microinfusion(s) [e.g., intraluminal, vascular wall and/or perivascular] therapy, any vessel, including radiological supervision and interpretation, when performed) is not reimbursable for assistant surgeon services.

Placement of Distal Prosthesis

CPT code 33886 (placement of distal extension prosthesis) may be reimbursed only once per day, any provider. Reimbursement for CPT code 75959 (placement of distal extension prosthesis, radiological supervision and interpretation) is limited to once per date of service, regardless of the number of modules deployed.

Repair of Pulmonary Artery

CPT codes 33925 and 33926 (repair of pulmonary artery) are reimbursable for a second assistant surgeon.

Septal Defect and Venous Anomalies

CPT codes 33675 thru 33677 (closure of septal defect), 33724 and 33726 (repair of venous anomalies) are reimbursable for a second assistant surgeon.

Venous Catheter

To bill for the surgical placement of intravenous devices for recipients who need repeated intravenous administration of drugs and related substances, use CPT codes 36560 thru 36566, 36570 and 36571 (insertion of central venous access device).

The placement of a reservoir (for example, Porta-Cath, Infus-a-Port) is considered incidental and is not reimbursable as an additional procedure.

Simple Cutdown Placement

Providers billing for the simple cutdown placement of central venous catheters (for example, for central venous pressure, hyperalimentation, hemodialysis or chemotherapy) should use CPT codes 36555, 36557 or 36568 for recipients under 5 years of age and codes 36556, 36558 or 36569 for recipients ages 5 years or older.

Coronary Artery Bypass

When a coronary bypass procedure is performed using venous grafts and arterial grafts during the same operating session, bill the procedure using two surgical codes:

- The appropriate arterial graft code (CPT codes 33533 thru 33536) with modifier AG
- The appropriate combined arterial-venous graft code (CPT codes 33517 thru 33519, 33521 thru 33523) with modifier 51

These codes require an approved TAR.

Percutaneous Coronary Intervention Procedures

Refer to the *Cardiology* section in this manual for coverage and billing information.

Re-Operation: Reimbursement Restrictions

A coronary artery bypass or valve re-operation (CPT code 33530) is reimbursable only if the re-operation was performed more than one month after the original operation. The re-operation (code 33530) should be billed in addition to the code for the primary procedure (codes 33390, 33391, 33404 thru 33478, 33510 thru 33523 and 33533 thru 33536) on the same claim form.

Providers billing with code 33410 (replacement, aortic valve, open, with cardiopulmonary bypass; with stentless tissue valve) may be reimbursed for a second assistant surgeon.

Low-density Lipoprotein-Apheresis

Low-density lipoprotein (LDL)-apheresis is reimbursable when performed to remove low-density lipoprotein cholesterol (LDL-C) from the plasma of high-risk patients when diet has been ineffective and maximum drug therapy has either been ineffective or not tolerated. The following recipients may be approved for LDL-apheresis:

- Recipients with homozygous familial hypercholesterolemia (FH) with LDL-C levels greater than 500 mg/dL
- Recipients with heterozygous FH with LDL-C levels greater than 300 mg/dL
- Recipients with heterozygous FH with LDL-C levels greater than 200 mg/dL and documented coronary artery disease

Authorization

Authorization is required for LDL-apheresis. TARs must be submitted each year for LDL-apheresis and may be approved for continuous 7 to 14-day intervals. All TARs must have a treatment plan that includes frequency and duration of proposed treatments. The initial TAR must include the following medical documentation:

- Diagnosis of familial hypercholesterolemia FH must be demonstrated by clinical assessment or by special laboratory examination.
- LDL-C levels must be obtained:
  - After the recipient with homozygous FH has been on an American Heart Association Step II Diet or an equivalent diet for at least three months or the recipient with heterozygous FH has been on a diet for six months, and
  - While the recipient is on a maximum tolerated combination drug therapy from at least two separate classes of hypolipidemic agents, one of which must include a 3-Hydroxy-3-methyl-glutaryl-Coenzyme A (HMG-CoA) reductase inhibitor.
  - Two LDL-C levels must be obtained within a two to four-week period.
- Coronary artery disease must be documented by coronary angiography, history of myocardial infarction, history of Coronary Artery Bypass Graft surgery (CABG), Percutaneous Transluminal Coronary Angioplasty (PTCA) or an alternative revascularization procedure such as atherectomy or stent, or by progressive angina documented by exercise or pharmacologic stress test for patients with heterozygous FH with LDL-C levels greater than 200 mg/dL.

Reauthorization Requirements

TARs for reauthorization must include the following medical documentation:

- Pre- and post-treatment cholesterol levels for at least two consecutive months prior to the submission date of the TAR
- The post-treatment cholesterol levels should, at a minimum, be at least 50 percent less than the pre-treatment level

Billing Requirements

Providers should bill for LDL-apheresis using CPT code 36516 (therapeutic apheresis; with extracorporeal immunoadsorption, selective adsorption or selective filtration and plasma reinfusion). Reimbursement for code 36516 includes pre-and post-cholesterol levels.

Cardiac Implantable Devices and Stents

Hospital outpatient departments and outpatient surgery clinic providers may only bill the following HCPCS codes for cardiac implantable devices and stents.

Providers must bill the HCPCS codes for cardiac implantable devices in conjunction with ICD-10-CM diagnosis codes I09.0, I09.81 and I09.9 thru I51.9 and submit an invoice. Failure to submit an invoice will result in denial of the claim.

‹‹**Billing with HCPCS Codes**››

HCPCS Codes	Description
C1721	Cardioverter-defibrillator, dual chamber
C1722	Cardioverter-defibrillator, single chamber
C1777	Lead, cardioverter-defibrillator, endocardial single coil
C1785	Pacemaker, dual chamber, rate-responsive
C1786	Pacemaker, single chamber, rate-responsive
C1882	Cardioverter-defibrillator, other than single or dual chamber
C1895	Lead, cardioverter-defibrillator, endocardial dual coil
C1896	Lead, cardioverter-defibrillator, other than endocardial single or dual coil
C2619	Pacemaker, dual chamber, non rate-responsive
C2620	Pacemaker, single chamber, non rate-responsive (implantable)
C2621	Pacemaker, other than single or dual chamber
C2624	Implantable wireless pulmonary artery pressure sensor with delivery catheter, including all system components

Providers must bill the following HCPCS codes for stents in conjunction with ICD-10-CM diagnosis codes I20.0 thru I51.9 and submit an invoice. Failure to submit an invoice will result in denial of the claim.

‹‹Billing with HCPCS Codes››

HCPCS Codes	Description
C1874	Stent, coated/covered, with delivery system
C1875	Stent, coated/covered, without delivery system

Note: For invoice requirements, refer to the "Surgical Implantable

Device Reimbursement" subsection in the *Surgery* section in the appropriate Part 2 manual.

Frequency Restriction

Cardiac implantable devices and stents have a frequency restriction of once a year for the same recipient by the same provider. Medical justification documented in the *Remarks* field (Box 80) is required for any surgical implantable device claims billed more than once in a year.

Surgical Treatment of Varicose Veins

Varicose veins may be surgically treated when conservative treatment has been unsuccessful in resolving symptoms.

Definition

Symptomatic varicose veins are defined as one of more of the following:

- Documented persistent or recurrent symptoms attributable to venous insufficiency such as pruritis, burning or edema that interfere with daily activity, or pain requiring analgesics. Submitted documentation should summarize the diagnostic evaluation and describe the nature of the functional limitation. These individuals must have failed a three-month trial of conservative management, including analgesics and prescription gradient support stockings providing at least 20 mm Hg of compression at the ankle.
- Hemorrhage from venous varicosity.
- Venous stasis ulceration.

TAR Requirements

An approved *Treatment Authorization Request* (TAR) is required for all reimbursements for stab phlebectomy, ligation and division with or without vein stripping, and radiofrequency ablation (RFA) or endovenous laser ablation (EVLA) of incompetent veins.

The following data must be clearly reported and accompany all TARs for surgery:

- Duplex ultrasound demonstrating clinically significant venous reflux of the great saphenous, small saphenous or perforating veins defined as greater than or equal to 0.5 seconds retrograde flow in the vein to be treated.
- Vein diameter must be 4.5 mm or greater in diameter, not severely tortuous, and vein diameter no greater than 12 mm for RFA or 20 mm for EVLA.
- Adequate patency of the deep veins of the leg documented by ultrasound.

Limitations

Additional limitations for surgical treatment of varicose veins:

- Duplex ultrasound when performed during a procedure or to monitor postoperative progress is not separately reimbursable.
- Stab phlebectomy may only be performed concurrently or shortly after RFA or EVLA if varicosities remain following successful RFA or EVLA. Duplex ultrasound must demonstrate no residual reflux and patency of the deep veins of the leg.
- No TARs will be approved for multiple treatment sessions of the same procedure on the same extremity. Repeat procedures are only indicated if clinical and anatomic failure unresponsive to conservative treatment is demonstrated after the 90-day post-operative period.

Contraindications

Contraindications for surgical treatment of varicose veins include but are not limited to:

- Pregnancy and three months following delivery
- Acute febrile illness or infection
- Recent deep vein thrombosis
- Acute superficial thrombophlebitis
- Severe peripheral artery disease (ankle-brachial index of 0.4 or less)
- Obliteration of deep venous system

Ventricular Assist ‹‹Devices, Accessories, and Procedures››

Ventricular Assist Devices that are FDA-approved are a benefit for FDA-approved indications. Claims for HCPCS codes Q0477 thru Q0504 and Q0506 thru Q0509 (ventricular assist devices and accessories) are reimbursed at invoice cost. ‹‹Please see the *modif used* section of the Part 2 provider manual for a list of modifiers for HCPCS codes Q0477 thru Q0504 and Q0506 thru Q0509.››

‹‹CPT code 33995 (insertion of ventricular assist device, percutaneous, including radiological supervision and interpretation right heart, venous access only) is reimbursable for primary and assistant surgeon services. Reimbursement is not allowed for more than one assistant surgeon.››

‹‹CPT code 33997 (removal of percutaneous right heart ventricular assist device, venous cannula, at separate and distinct session from insertion) is reimbursable for primary and assistant surgeon services. Reimbursement is not allowed for more than one assistant surgeon.››

Second Assistant Surgeon

Reimbursement for a second assistant surgeon is allowed for the following CPT codes:

32852	33474	33692	33916
32854	33476	33694	33922
33031	33478	33702	33925
33120	33496	33710	33926
33251	33500	33720	33945
33259	33504	33724	35081
33261	33510 thru 33514	33726	35082
33305	33516 thru 33519	33730	35091
33315	33521 thru 33523	33736	35092
33321	33530	33774 thru 33783	35103
33322	33533 thru 33536	33786	35211
33335	33542	33788	35241
33390	33545	33814	35271
33391	33572	33840	35331
33405	33641	33845	35361
33406	33645	33851 thru 33853	35363
33410 thru 33412	33647	33858	35526
33415 thru 33417	33660	33859	35531
33422	33665	33863	35560
33425 thru 33427	33670	33864	35626
33430	33675 thru 33677	33871	35631
33460	33681	33875	35646
33465	33684	33877	
33468	33688	33910	

Providers must document in the *Remarks* field (Box 80)/*Additional Claim Information* field (Box 19) of the claim that the services were rendered by more than one assistant surgeon for the same surgery on the same date.

Cardiac Valves: Mitral Valve

The following CPT codes are reimbursable for primary and assistant surgeon services. Reimbursement is not allowed for more than one assistant surgeon.

‹‹Reimbursable CPT Codes for Primary and Assistant Surgeon Services››

CPT Code	Description
33418	Transcatheter mitral valve repair, percutaneous approach, including transseptal puncture when performed; initial prosthesis
33419	Transcatheter mitral valve repair, percutaneous approach, including transseptal puncture when performed; additional prosthesis(es) during same session

‹‹Legend››

‹‹Symbols used in the document above are explained in the following table.››

Symbol	Description
‹‹	This is a change mark symbol. It is used to indicate where on the page the most recent change begins.
››	This is a change mark symbol. It is used to indicate where on the page the most recent change ends.