

Cardiology/ Cardiothoracic/ Vascular Surgery

A comprehensive illustrated guide to coding
and reimbursement

2022

optum360coding.com

Contents

Getting Started with Coding Companion	i	Heart and Pericardium	178
CPT Codes	i	Arteries and Veins.....	397
ICD-10-CM.....	i	Lymph Nodes.....	736
Detailed Code Information	i	Mediastinum.....	739
Appendix Codes and Descriptions.....	i	Diaphragm	744
CCI Edit Updates	i	Esophagus.....	746
Index.....	i	Abdomen.....	762
General Guidelines	i	Thyroid Gland	767
Cardiology/Cardiothoracic and Vascular Procedures		Parathyroid.....	768
and Services.....	1	Nervous System	771
E/M Services	1	Medicine	772
General Musculoskeletal	46	HCPCS.....	854
Neck and Thorax.....	48	Appendix	857
Larynx	66	Correct Coding Initiative Update	905
Trachea and Bronchi.....	72	Index.....	925
Lungs and Pleura.....	101		

SAMPLE

Getting Started with Coding Companion

Coding Companion for Cardiology/Cardiothoracic/Vascular Surgery is designed to be a guide to the specialty procedures classified in the CPT® book. It is structured to help coders understand procedures and translate physician narrative into correct CPT codes by combining many clinical resources into one, easy-to-use source book.

The book also allows coders to validate the intended code selection by providing an easy-to-understand explanation of the procedure and associated conditions or indications for performing the various procedures. As a result, data quality and reimbursement will be improved by providing code-specific clinical information and helpful tips regarding the coding of procedures.

CPT Codes

For ease of use, evaluation and management codes related to Cardiology/Cardiothoracic/Vascular Surgery are listed first in the *Coding Companion*. All other CPT codes in *Coding Companion* are listed in ascending numeric order. Included in the code set are all surgery, radiology, laboratory, and medicine codes pertinent to the specialty. Each CPT code is followed by its official CPT code description.

Resequencing of CPT Codes

The American Medical Association (AMA) employs a resequenced numbering methodology. According to the AMA, there are instances where a new code is needed within an existing grouping of codes, but an unused code number is not available to keep the range sequential. In the instance where the existing codes were not changed or had only minimal changes, the AMA assigned a code out of numeric sequence with the other related codes being grouped together. The resequenced codes and their descriptions have been placed with their related codes, out of numeric sequence.

CPT codes within the Optum360 *Coding Companion* series display in their resequenced order. Resequenced codes are enclosed in brackets for easy identification.

ICD-10-CM

Overall, the 10th revision goes into greater clinical detail than did ICD-9-CM and addresses information about previously classified diseases, as well as those diseases discovered since the last revision. Conditions are grouped with general epidemiological purposes and the evaluation of health care in mind. New features have been added, and conditions have been reorganized, although the format and conventions of the classification remain unchanged for the most part.

Detailed Code Information

One or more columns are dedicated to each procedure or service or to a series of similar procedures/services. Following the specific CPT code and its narrative, is a combination of features. A sample is shown on page ii. The black boxes with numbers in them correspond to the information on the pages following the sample.

Appendix Codes and Descriptions

Some CPT codes are presented in a less comprehensive format in the appendix. The CPT codes appropriate to the specialty are included in the appendix with the official CPT code description. The codes are presented in numeric order, and each code is followed by an easy-to-understand lay description of the procedure.

The codes in the appendix are presented in the following order:

- HCPCS
- Surgery
- Radiology
- Pathology and Laboratory
- Medicine Services
- Category III

Category II codes are not published in this book. Refer to the CPT book for code descriptions.

CCI Edit Updates

The *Coding Companion* series includes the list of codes from the official Centers for Medicare and Medicaid Services' National Correct Coding Policy Manual for Part B Medicare Contractors that are considered to be an integral part of the comprehensive code or mutually exclusive of it and should not be reported separately. The codes in the Correct Coding Initiative (CCI) section are from version 26.3, the most current version available at press time. The CCI edits are located in a section at the back of the book. Optum360 maintains a website to accompany the Coding Companions series and posts updated CCI edits on this website so that current information is available before the next edition. The website address is <http://www.optum360coding.com/ProductUpdates/>. The 2021 edition password is: **SPECIALTY21**. Log in each quarter to ensure you receive the most current updates. An email reminder will also be sent to you to let you know when the updates are available.

Index

A comprehensive index is provided for easy access to the codes. The index entries have several axes. A code can be looked up by its procedural name or by the diagnoses commonly associated with it. Codes are also indexed anatomically. For example:

32800 Repair lung hernia through chest wall

could be found in the index under the following main terms:

Hernia

Repair
Lung, 32800

Repair

Lung
Hernia, 32800

General Guidelines

Providers

The AMA advises coders that while a particular service or procedure may be assigned to a specific section, it is not limited to use only by that specialty group (see paragraphs two and three under "Instructions for Use of the CPT Codebook" on page xiv of the CPT Book). Additionally, the procedures and services listed throughout the book are for use by any qualified physician or other qualified health care professional or entity (e.g., hospitals, laboratories, or home health agencies). Keep in mind that there may be other policies or guidance that can affect who may report a specific service.

Supplies

Some payers may allow physicians to separately report drugs and other supplies when reporting the place of service as office or other nonfacility setting. Drugs and supplies are to be reported by the facility only when performed in a facility setting.

Professional and Technical Component

Radiology and some pathology codes often have a technical and a professional component. When physicians do not own their own equipment and send their patients to outside testing facilities, they should append modifier 26 to the procedural code to indicate they performed only the professional component.

99238-99239

99238 Hospital discharge day management; 30 minutes or less
99239 more than 30 minutes

Explanation

Hospital discharge services are time-based codes that, when reported, describe the amount of time spent by the qualified clinician during all final steps involved in the discharge of a patient from the hospital on a date that differs from the date of admission, including the last patient exam, discussing the hospital stay, instructions for ongoing care as it relates to all pertinent caregivers, as well as preparing the medical discharge records, prescriptions, and/or referrals as applicable. Time reported should be for the total duration of time spent by the provider even when the time spent on that date is not continuous. For a hospital discharge duration of 30 minutes or less, report 99238; for a duration of greater than 30 minutes, report 99239. There are no key components associated with these services.

Coding Tips

These codes are used to report all discharge day services for the hospital inpatient, including patient examination, discharge and follow-up care instructions, and preparation of all medical records. These are time-based codes and time spent with the patient must be documented in the medical record. For observation discharge on a different date of service than the admission, see 99217. For patients admitted and discharged from observation or inpatient status on the same date, see 99234-99236. Medicare has provisionally identified these codes as telehealth/telemedicine services. Current Medicare coverage guidelines should be reviewed. Commercial payers should be contacted regarding their coverage guidelines. Telemedicine services may be reported by the performing provider by adding modifier 95 to these procedure codes. Services at the origination site are reported with HCPCS Level II code Q3014.

ICD-10-CM Diagnostic Codes

The application of this code is too broad to adequately present ICD-10-CM diagnostic code links here. Refer to your ICD-10-CM book.

AMA: 99238 2018,Jan,8; 2018,Dec,8; 2018,Dec,8; 2017,Jun,6; 2017,Jan,8; 2017,Aug,3; 2016,Jan,13; 2016,Dec,11; 2015,Jan,16; 2014,Oct,8; 2014,Jan,11
99239 2018,Jan,8; 2018,Dec,8; 2018,Dec,8; 2017,Jun,6; 2017,Jan,8; 2017,Aug,3; 2016,Jan,13; 2016,Dec,11; 2015,Jan,16; 2014,Oct,8; 2014,Jan,11

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
99238	1.28	0.69	0.09	2.06
99239	1.9	1.0	0.12	3.02
Facility RVU	Work	PE	MP	Total
99238	1.28	0.69	0.09	2.06
99239	1.9	1.0	0.12	3.02

	FUD	Status	MUE	Modifiers				IOM Reference
99238	N/A	A	1(3)	N/A	N/A	N/A	80*	100-04,12,30.6.4;
99239	N/A	A	1(3)	N/A	N/A	N/A	80*	100-04,12,30.6.9; 100-04,12,30.6.9.1; 100-04,12,30.6.9.2; 100-04,12,100

* with documentation

99241-99245

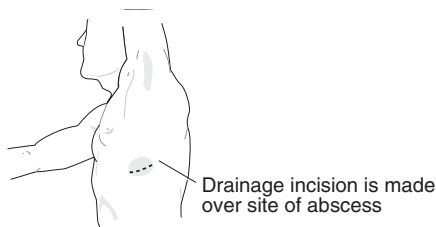
- ★**99241** Office consultation for a new or established patient, which requires these 3 key components: A problem focused history; A problem focused examination; and Straightforward medical decision making. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are self limited or minor. Typically, 15 minutes are spent face-to-face with the patient and/or family.
- ★**99242** Office consultation for a new or established patient, which requires these 3 key components: An expanded problem focused history; An expanded problem focused examination; and Straightforward medical decision making. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of low severity. Typically, 30 minutes are spent face-to-face with the patient and/or family.
- ★**99243** Office consultation for a new or established patient, which requires these 3 key components: A detailed history; A detailed examination; and Medical decision making of low complexity. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate severity. Typically, 40 minutes are spent face-to-face with the patient and/or family.
- ★**99244** Office consultation for a new or established patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; and Medical decision making of moderate complexity. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Typically, 60 minutes are spent face-to-face with the patient and/or family.
- ★**99245** Office consultation for a new or established patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; and Medical decision making of high complexity. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Typically, 80 minutes are spent face-to-face with the patient and/or family.

Explanation

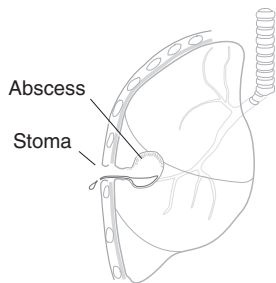
Office and other outpatient consultation service codes describe encounters where another qualified clinician's advice or opinion regarding diagnosis and treatment or determination to accept transfer of care of a patient is rendered at the request of the primary treating provider. Consultations may also be requested by another appropriate source; for example, a third-party payer may request a second opinion. The request for a consultation must be documented in the medical record, as well as a written report of the consultation findings. During the course of a consultation, the physician consultant can initiate diagnostic or therapeutic services at the same encounter or at a follow-up visit. Other separately reportable procedures or services

32200

32200 Pneumonostomy, with open drainage of abscess or cyst



A stoma, or opening, into the abscess in the chest cavity allows it to drain to the outside



Explanation

The physician treats an abscess or cyst in the lung by draining the pus or fluid directly through the chest wall. Using a scalpel, the skin between two ribs is incised and the tissues separated to expose the inside of the chest cavity. The lung is cut with scissors or a scalpel down to the abscess or the cyst. The abscess or cyst is opened and the fluid is allowed to drain through the wound created in the lung and the chest wall. A rubber drainage tube may be left in place to maintain or facilitate drainage. The incision is not sutured closed. The outside incision is dressed with bulky gauze dressing to absorb the drainage.

Coding Tips

A pneumonostomy is performed for abscess or cyst within the lung. For empyema, an accumulation of pus in the pleural space, see 32035–32036. For drainage of an abscess in the thoracic cavity by tube thoracostomy, see 32551. For a percutaneous image-guided drainage of an abscess or cyst of the lungs by catheter placement, see 49405.

ICD-10-CM Diagnostic Codes

B67.1	Echinococcus granulosus infection of lung
J85.0	Gangrene and necrosis of lung
J85.1	Abscess of lung with pneumonia
J85.2	Abscess of lung without pneumonia
J86.0	Pyothorax with fistula
J86.9	Pyothorax without fistula
J98.4	Other disorders of lung
Q33.0	Congenital cystic lung

AMA: 32200 2013, Nov, 9

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
32200	18.68	9.86	4.25	32.79
Facility RVU	Work	PE	MP	Total
32200	18.68	9.86	4.25	32.79

	FUD	Status	MUE	Modifiers				IOM Reference
32200	90	A	2(3)	51	N/A	62*	80	None

* with documentation

Terms To Know

abscess. Circumscribed collection of pus resulting from bacteria, frequently associated with swelling and other signs of inflammation.

emphysematous bleb. Formation of blisters or vesicles greater than 1.0 mm within an emphysematous lung, containing serum or blood.

empyema. Accumulation of pus within the respiratory or pleural cavity.

incision and drainage. Cutting open body tissue for the removal of tissue fluids or infected discharge from a wound or cavity.

mediastinum. Collection of organs and tissues that separate the pleural sacs. Located between the sternum and spine above the diaphragm, it contains the heart and great vessels, trachea and bronchi, esophagus, thymus, lymph nodes, and nerves.

percutaneous. Through the skin.

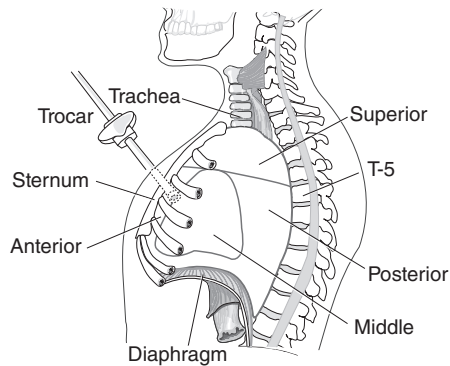
pneumonostomy. Surgical incision into a lung.

thoracostomy. Creation of an opening in the chest wall for drainage.

32662

32662 Thoracoscopy, surgical; with excision of mediastinal cyst, tumor, or mass

A cyst, tumor, or mass within the mediastinal space is removed in a thoracoscopic surgical procedure



Explanation

The physician removes a cyst, tumor, or mass from the mediastinum through either a rigid or flexible fiberoptic endoscope. The procedure can be done under local or general anesthesia. The physician makes a small incision between two ribs and by blunt dissection and the use of a trocar enters the thoracic cavity. The endoscope is passed through the trocar and into the chest cavity. The lung is usually partially collapsed by instilling air into the chest through the trocar or, if general anesthesia is used, the lung may be collapsed through a special double lumen endotracheal tube inserted through the mouth into the trachea. As the physician views the structures and the anatomy of the area through the endoscope, the endoscope is advanced to and into the mediastinum (area inside the center of the chest cavity between the lungs). The contents of the mediastinal space are examined by direct visualization and/or by the use of a video camera. Still photographs may be taken as part of the procedure. The cyst, tumor, or mass is identified and removed using instruments guided through the endoscope or by using instruments introduced into the area through a second and/or third insertion site in the chest. At the conclusion of the procedure, the endoscope and the trocar are withdrawn. A chest tube for drainage and re-expansion of the lung is usually inserted through the wound used for the thoracoscopy.

Coding Tips

Surgical thoracoscopy always includes diagnostic thoracoscopy. For open excision of a mediastinal cyst, see 39200. For open excision of a mediastinal tumor, see 39220.

ICD-10-CM Diagnostic Codes

- C33 Malignant neoplasm of trachea
- C34.01 Malignant neoplasm of right main bronchus
- C34.02 Malignant neoplasm of left main bronchus
- C38.0 Malignant neoplasm of heart
- C38.1 Malignant neoplasm of anterior mediastinum
- C38.2 Malignant neoplasm of posterior mediastinum
- C38.8 Malignant neoplasm of overlapping sites of heart, mediastinum and pleura
- C78.1 Secondary malignant neoplasm of mediastinum
- C7A.090 Malignant carcinoid tumor of the bronchus and lung

- C81.02 Nodular lymphocyte predominant Hodgkin lymphoma, intrathoracic lymph nodes
- C81.12 Nodular sclerosis Hodgkin lymphoma, intrathoracic lymph nodes
- C81.22 Mixed cellularity Hodgkin lymphoma, intrathoracic lymph nodes
- C81.32 Lymphocyte depleted Hodgkin lymphoma, intrathoracic lymph nodes
- C81.42 Lymphocyte-rich Hodgkin lymphoma, intrathoracic lymph nodes
- C81.72 Other Hodgkin lymphoma, intrathoracic lymph nodes
- C82.02 Follicular lymphoma grade I, intrathoracic lymph nodes
- C82.12 Follicular lymphoma grade II, intrathoracic lymph nodes
- C82.32 Follicular lymphoma grade IIIa, intrathoracic lymph nodes
- C82.52 Diffuse follicle center lymphoma, intrathoracic lymph nodes
- C82.62 Cutaneous follicle center lymphoma, intrathoracic lymph nodes
- C82.82 Other types of follicular lymphoma, intrathoracic lymph nodes
- C83.02 Small cell B-cell lymphoma, intrathoracic lymph nodes
- C83.12 Mantle cell lymphoma, intrathoracic lymph nodes
- C83.32 Diffuse large B-cell lymphoma, intrathoracic lymph nodes
- C83.52 Lymphoblastic (diffuse) lymphoma, intrathoracic lymph nodes
- C83.72 Burkitt lymphoma, intrathoracic lymph nodes
- C84.02 Mycosis fungoides, intrathoracic lymph nodes
- C84.12 Sezary disease, intrathoracic lymph nodes
- C84.22 Other mature T/NK-cell lymphomas, intrathoracic lymph nodes
- C85.22 Mediastinal (thymic) large B-cell lymphoma, intrathoracic lymph nodes
- C85.82 Other specified types of non-Hodgkin lymphoma, intrathoracic lymph nodes
- D14.31 Benign neoplasm of right bronchus and lung
- D14.32 Benign neoplasm of left bronchus and lung
- D15.0 Benign neoplasm of thymus
- D15.2 Benign neoplasm of mediastinum
- D38.3 Neoplasm of uncertain behavior of mediastinum
- D38.4 Neoplasm of uncertain behavior of thymus
- D3A.090 Benign carcinoid tumor of the bronchus and lung

AMA: 32662 2018,Jan,8; 2017,Jan,8; 2016,Jan,13; 2015,Jan,16; 2014,Jan,11

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
32662	14.99	7.35	3.41	25.75
Facility RVU	Work	PE	MP	Total
32662	14.99	7.35	3.41	25.75

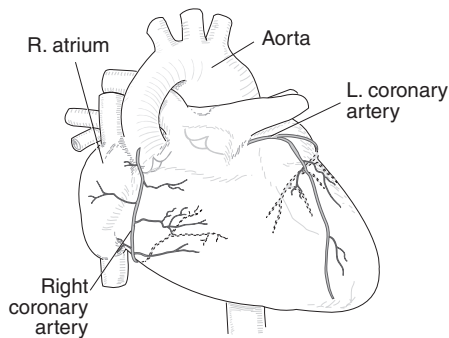
	FUD	Status	MUE	Modifiers				IOM Reference
32662	90	A	1(3)	51	N/A	62*	80	None

* with documentation

33363-33364

33363 Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; open axillary artery approach

33364 open iliac artery approach



Aortic valves are replaced using a transcatheter approach

Explanation

Transcatheter aortic valve replacement or implantation (TAVR/TAVI) is performed on patients with symptomatic aortic stenosis that are high risk or not eligible for traditional open chest surgery. A guidewire is placed in a peripheral or other artery and manipulated into the left ventricle. A catheter is inserted following the guidewire to the aortic valve. A balloon is inflated to compress the native valve. A porcine valve attached to an expandable stent is deployed over the compressed native valve. The catheter and guidewire are removed. Report 33363 if the catheter access is via an open axillary artery approach and 33364 when access is via an open iliac artery approach.

Coding Tips

These procedures are typically performed by two surgeons performing their own components of the procedure. In these instances, append modifier 62. Angiography and radiological supervision to guide the procedure are included in the codes and are not reported separately. Diagnostic coronary angiography performed at the time of the procedure may be reported in certain instances, such as when no prior catheter-based angiography study has been performed or a significant change in the patient's condition has occurred since the time of a prior study. Diagnostic coronary angiography services reported at the same surgical session as TAVR/TAVI services must have modifier 59 appended and must meet specific coverage requirements. Check with local payers for requirements. Percutaneous coronary interventional procedures are reported separately when performed with these codes. For cardiopulmonary bypass with TAVR/TAVI procedures, see 33367–33369. For transcatheter ventricular support with TAVR/TAVI, see the ventricular assist device (VAD) procedure codes (33975–33976, 33990–33993, 33995, 33997) and the balloon pump insertion codes (33967, 33970, and 33973). For a transapical approach, see 33366.

ICD-10-CM Diagnostic Codes

- 106.0 Rheumatic aortic stenosis
- 106.2 Rheumatic aortic stenosis with insufficiency
- 108.0 Rheumatic disorders of both mitral and aortic valves
- 108.8 Other rheumatic multiple valve diseases
- 135.0 Nonrheumatic aortic (valve) stenosis
- 135.1 Nonrheumatic aortic (valve) insufficiency
- 135.2 Nonrheumatic aortic (valve) stenosis with insufficiency
- 135.8 Other nonrheumatic aortic valve disorders

I35.9 Nonrheumatic aortic valve disorder, unspecified

Q23.0 Congenital stenosis of aortic valve

AMA: 33363 2018,Jan,8; 2017,Jan,8; 2017,Dec,3; 2016,Jan,13; 2015,Mar,9; 2015,Jan,16; 2014,Jul,8; 2014,Jan,5; 2014,Jan,11 **33364** 2018,Jan,8; 2017,Jan,8; 2017,Dec,3; 2016,Jan,13; 2015,Mar,9; 2015,Jan,16; 2014,Jul,8; 2014,Jan,5; 2014,Jan,11

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
33363	25.47	8.55	5.7	39.72
33364	25.97	7.92	5.84	39.73
Facility RVU	Work	PE	MP	Total
33363	25.47	8.55	5.7	39.72
33364	25.97	7.92	5.84	39.73

	FUD	Status	MUE	Modifiers			IOM Reference	
33363	0	A	1(2)	51	N/A	62	80*	None
33364	0	A	1(2)	51	N/A	62	80*	

* with documentation

Terms To Know

angiography. Radiographic imaging of the arteries.

aortic stenosis. Narrowing of the aortic valve resulting in backflow of blood into the ventricle.

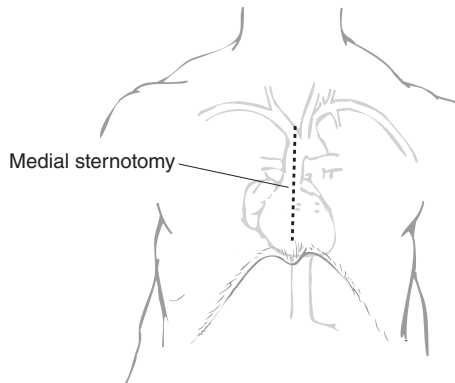
aortic valve. Heart valve, comprising three cusps, that divides the left ventricle and the aorta.

prosthetic. Device that replaces all or part of an internal body organ or body part, or that replaces part of the function of a permanently inoperable or malfunctioning internal body organ or body part.

transcatheter. Procedure or treatment performed via a catheter.

33365

33365 Transcatheter aortic valve replacement (TAVR/TAVI) with prosthetic valve; transaortic approach (eg, median sternotomy, mediastinotomy)



Medial sternotomy approach is utilized for transcatheter aortic valve replacement

Explanation

Transcatheter aortic valve replacement or implantation (TAVR/TAVI) is performed on patients with symptomatic aortic stenosis that are high risk or not eligible for traditional open chest surgery. A median sternotomy or mediastinotomy is performed for direct access to the aorta. The aorta is incised and a guidewire is inserted and manipulated into the left ventricle. A catheter is inserted following the guidewire to the aortic valve. A balloon is inflated to compress the native valve. A porcine valve attached to an expandable stent is deployed over the compressed native valve. The catheter and guidewire are removed.

Coding Tips

This procedure is typically performed by two surgeons performing their own components of the procedure. In these instances, append modifier 62. Angiography and radiological supervision to guide the procedure is included in the code and is not reported separately. Diagnostic coronary angiography performed at the time of the procedure may be reported in certain instances, such as when no prior catheter-based angiography study has been performed or a significant change in the patient's condition has occurred since the time of a prior study. Diagnostic coronary angiography services reported at the same surgical session as TAVR/TAVI services must have modifier 59 appended and must meet specific coverage requirements. Check with local payers for requirements. Percutaneous coronary interventional procedures are reported separately when performed with these codes. For cardiopulmonary bypass with TAVR/TAVI procedures, see 33367–33369. For transcatheter ventricular support with TAVR/TAVI, see the ventricular assist device (VAD) procedure codes (33975–33976, 33990–33993, 33995, 33997) and the balloon pump insertion codes (33967, 33970, 33973). For a transapical approach, see 33366.

ICD-10-CM Diagnostic Codes

- I06.0 Rheumatic aortic stenosis
- I06.2 Rheumatic aortic stenosis with insufficiency
- I08.0 Rheumatic disorders of both mitral and aortic valves
- I08.8 Other rheumatic multiple valve diseases
- I35.0 Nonrheumatic aortic (valve) stenosis
- I35.1 Nonrheumatic aortic (valve) insufficiency
- I35.2 Nonrheumatic aortic (valve) stenosis with insufficiency
- I35.8 Other nonrheumatic aortic valve disorders

- I35.9 Nonrheumatic aortic valve disorder, unspecified
- Q23.0 Congenital stenosis of aortic valve

AMA: 33365 2018,Jan,8; 2017,Jan,8; 2016,Jan,13; 2015,Mar,9; 2015,Jan,16; 2014,Jul,8; 2014,Jan,5; 2014,Jan,11

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
33365	26.59	9.45	5.94	41.98
Facility RVU	Work	PE	MP	Total
33365	26.59	9.45	5.94	41.98

	FUD	Status	MUE	Modifiers			IOM Reference	
33365	0	A	1(2)	51	N/A	62	80*	None

* with documentation

Terms To Know

aortic valve. Heart valve, comprising three cusps, that divides the left ventricle and the aorta.

median sternotomy. Standard incision for open chest cardiac surgeries, from above the bellybutton to just under the chin, down the center of the chest through the sternum into the thoracic cavity.

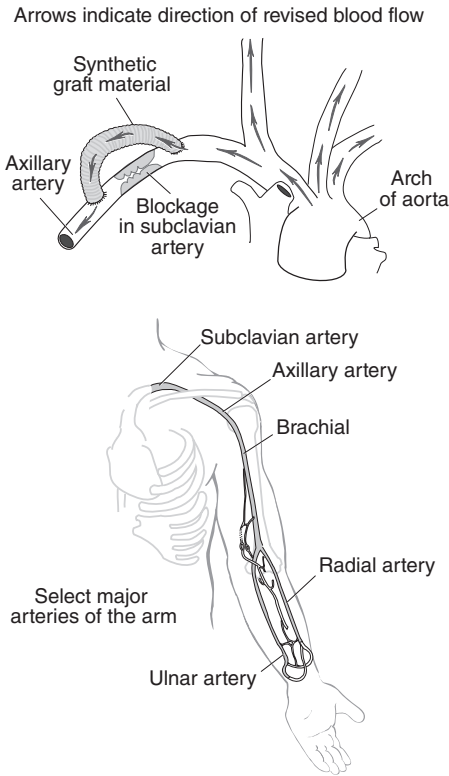
mediastinotomy. Incision into the mediastinum for purposes of exploration, foreign body removal, drainage, or biopsy.

prosthetic. Device that replaces all or part of an internal body organ or body part, or that replaces part of the function of a permanently inoperable or malfunctioning internal body organ or body part.

rheumatic heart disease. Manifestation of and sequel to rheumatic fever; any cardiac involvement in rheumatic fever.

35616

35616 Bypass graft, with other than vein; subclavian-axillary



Explanation

Through an incision in the skin at the base of the neck and axilla, the physician isolates and dissects the subclavian and axillary arteries, separating them from adjacent critical structures. The physician creates a bypass around a section of subclavian artery that is damaged or blocked, using a synthetic vein and one of two methods of repair. Once vessel clamps have been affixed above and below the defect, the ends of the synthetic vein are sutured into the sides of the subclavian and axillary arterial walls resulting in a bypass of the damaged area (end-to-side). In the second method, the subclavian artery may be cut through before the damaged area and sutured to one end of a synthetic vein, which is then sutured to the axillary artery (end-to-end). The blocked or damaged portion of the subclavian artery is not removed. When the clamps are removed, the section of synthetic vein graft forms a new path through which blood can easily bypass the blocked area. After the graft is complete, the skin incisions are repaired with a layered closure.

Coding Tips

Establishing both inflow and outflow by any method is included. That portion of the operative arteriogram performed by the surgeon is also included. Angioscopy performed during therapeutic intervention should be reported in addition to the code for the primary procedure; see 35400. For transposition and/or reimplantation of arteries, see 35691–35695.

ICD-10-CM Diagnostic Codes

- G45.8 Other transient cerebral ischemic attacks and related syndromes
- G45.9 Transient cerebral ischemic attack, unspecified
- I63.09 Cerebral infarction due to thrombosis of other precerebral artery
- I63.19 Cerebral infarction due to embolism of other precerebral artery

- I63.29 Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries
- I63.81 Other cerebral infarction due to occlusion or stenosis of small artery
- I63.89 Other cerebral infarction
- I65.8 Occlusion and stenosis of other precerebral arteries
- I67.850 Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy
- I67.858 Other hereditary cerebrovascular disease
- I70.92 Chronic total occlusion of artery of the extremities
- I72.1 Aneurysm of artery of upper extremity
- I74.2 Embolism and thrombosis of arteries of the upper extremities
- I74.8 Embolism and thrombosis of other arteries
- I75.011 Atheroembolism of right upper extremity
- I75.012 Atheroembolism of left upper extremity
- I75.013 Atheroembolism of bilateral upper extremities
- I77.1 Stricture of artery
- I77.2 Rupture of artery
- I77.5 Necrosis of artery
- I77.89 Other specified disorders of arteries and arterioles
- S15.8XXA Injury of other specified blood vessels at neck level, initial encounter
- S25.111A Minor laceration of right innominate or subclavian artery, initial encounter
- S25.112A Minor laceration of left innominate or subclavian artery, initial encounter
- S25.121A Major laceration of right innominate or subclavian artery, initial encounter
- S25.122A Major laceration of left innominate or subclavian artery, initial encounter
- S25.191A Other specified injury of right innominate or subclavian artery, initial encounter
- S25.192A Other specified injury of left innominate or subclavian artery, initial encounter

AMA: 35616 1997,Nov,1

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
35616	21.82	4.95	5.25	32.02
Facility RVU	Work	PE	MP	Total
35616	21.82	4.95	5.25	32.02

	FUD	Status	MUE	Modifiers				IOM Reference
35616	90	A	1(3)	51	50	62*	80	None

* with documentation

Terms To Know

angioscopy. Visualization of capillary blood vessels with a microscope, or the inside of a blood vessel with a fiberoptic-equipped catheter.

arteriogram. Radiograph of arteries.

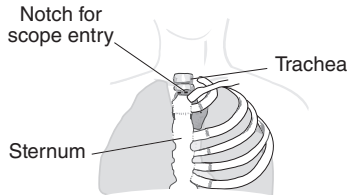
atherosclerosis. Buildup of yellowish plaques composed of cholesterol and lipid material within the arteries.

39401-39402

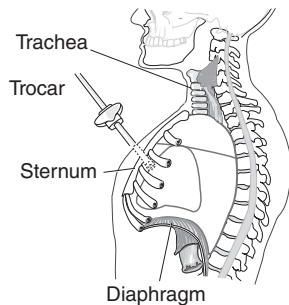
39401 Mediastinoscopy; includes biopsy(ies) of mediastinal mass (eg, lymphoma), when performed

39402 with lymph node biopsy(ies) (eg, lung cancer staging)

The mediastinum describes tissues and organs bounded by lungs, spinal column, and sternum. Exploration or biopsy is performed through use of endoscopic tools



Videoscope is delivered through trocar and the mediastinum is visually examined; biopsy tissue may be collected



Explanation

The physician performs a mediastinoscopy. The physician makes a small incision in the notch above the sternum. The mediastinoscope is inserted and explorations are carried out between the trachea and the major vessels. The mediastinal lymph nodes, thymus, and thyroid are visualized and a biopsy(ies) may be performed through the mediastinoscope during the procedure. The scope is removed and the incision is closed with sutures or Steri-strips. Report 39401 for biopsy of a mediastinal mass. Report 39402 for a biopsy of the lymph nodes.

Coding Tips

For thoracoscopy, diagnostic, lungs, pericardial sac, mediastinal and pleural space without biopsy, see 32601; pericardial sac with biopsy, see 32604; and mediastinal space with biopsy, see 32606. For thoracoscopy, surgical with excision of mediastinal cyst, tumor, or mass, see 32662. For mediastinotomy with exploration, drainage, removal of foreign body, or biopsy, thoracic approach, see 39010; cervical approach, see 39000. For resection of a mediastinal cyst, see 39200. For resection of a mediastinal tumor, see 39220.

ICD-10-CM Diagnostic Codes

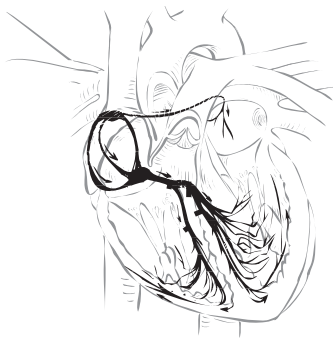
- A15.4 Tuberculosis of intrathoracic lymph nodes
- A15.8 Other respiratory tuberculosis
- C33 Malignant neoplasm of trachea
- C34.01 Malignant neoplasm of right main bronchus ✓
- C34.02 Malignant neoplasm of left main bronchus ✓
- C34.11 Malignant neoplasm of upper lobe, right bronchus or lung ✓
- C34.12 Malignant neoplasm of upper lobe, left bronchus or lung ✓
- C34.2 Malignant neoplasm of middle lobe, bronchus or lung

- C34.31 Malignant neoplasm of lower lobe, right bronchus or lung ✓
- C34.32 Malignant neoplasm of lower lobe, left bronchus or lung ✓
- C34.81 Malignant neoplasm of overlapping sites of right bronchus and lung ✓
- C34.82 Malignant neoplasm of overlapping sites of left bronchus and lung ✓
- C37 Malignant neoplasm of thymus
- C38.1 Malignant neoplasm of anterior mediastinum
- C38.2 Malignant neoplasm of posterior mediastinum
- C38.4 Malignant neoplasm of pleura
- C38.8 Malignant neoplasm of overlapping sites of heart, mediastinum and pleura
- C45.0 Mesothelioma of pleura
- C78.01 Secondary malignant neoplasm of right lung ✓
- C78.02 Secondary malignant neoplasm of left lung ✓
- C78.1 Secondary malignant neoplasm of mediastinum
- C78.2 Secondary malignant neoplasm of pleura
- C7A.090 Malignant carcinoid tumor of the bronchus and lung
- C7A.091 Malignant carcinoid tumor of the thymus
- C81.02 Nodular lymphocyte predominant Hodgkin lymphoma, intrathoracic lymph nodes
- C81.12 Nodular sclerosis Hodgkin lymphoma, intrathoracic lymph nodes
- C81.22 Mixed cellularity Hodgkin lymphoma, intrathoracic lymph nodes
- C81.42 Lymphocyte-rich Hodgkin lymphoma, intrathoracic lymph nodes
- C82.02 Follicular lymphoma grade I, intrathoracic lymph nodes
- C82.12 Follicular lymphoma grade II, intrathoracic lymph nodes
- C82.32 Follicular lymphoma grade IIIa, intrathoracic lymph nodes
- C82.42 Follicular lymphoma grade IIIb, intrathoracic lymph nodes
- C82.52 Diffuse follicle center lymphoma, intrathoracic lymph nodes
- C82.62 Cutaneous follicle center lymphoma, intrathoracic lymph nodes
- C82.82 Other types of follicular lymphoma, intrathoracic lymph nodes
- C83.02 Small cell B-cell lymphoma, intrathoracic lymph nodes
- C83.32 Diffuse large B-cell lymphoma, intrathoracic lymph nodes
- C83.52 Lymphoblastic (diffuse) lymphoma, intrathoracic lymph nodes
- C83.72 Burkitt lymphoma, intrathoracic lymph nodes
- C83.82 Other non-follicular lymphoma, intrathoracic lymph nodes
- C84.02 Mycosis fungoides, intrathoracic lymph nodes
- C84.12 Sezary disease, intrathoracic lymph nodes
- C84.Z2 Other mature T/NK-cell lymphomas, intrathoracic lymph nodes
- C85.22 Mediastinal (thymic) large B-cell lymphoma, intrathoracic lymph nodes
- C85.82 Other specified types of non-Hodgkin lymphoma, intrathoracic lymph nodes
- C96.Z Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue
- D02.1 Carcinoma in situ of trachea
- D02.21 Carcinoma in situ of right bronchus and lung ✓
- D02.22 Carcinoma in situ of left bronchus and lung ✓
- D02.3 Carcinoma in situ of other parts of respiratory system
- D14.2 Benign neoplasm of trachea
- D14.31 Benign neoplasm of right bronchus and lung ✓
- D14.32 Benign neoplasm of left bronchus and lung ✓
- D15.0 Benign neoplasm of thymus
- D15.2 Benign neoplasm of mediastinum

[92941]

92941 Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty, including aspiration thrombectomy when performed, single vessel

Revascularization of occlusion in native or bypass coronary artery



Explanation

The use of one or any combination of angioplasty, atherectomy, or stent placement is performed to restore an acutely blocked coronary artery bypass graft (CABG) or native coronary artery during an acute myocardial infarction. The physician makes a small incision in the arm or leg to access the artery for placement of two catheters. A central venous catheter is inserted through the femoral or brachial artery and a second catheter is threaded up to the affected vessel or graft. The obstruction may be treated by using a rotary cutter (atherectomy) to flatten or remove the obstruction, inflating a balloon at the tip of the second catheter (PTCA), or introducing a stent that is expanded to fit the lumen of the artery. The catheters are removed. Pressure is placed over the incision for 20 to 30 minutes to stop the bleeding.

Coding Tips

When medically necessary, report moderate (conscious) sedation provided by the performing physician with 99151-99153. When provided by another physician, report 99155-99157. Diagnostic coronary angiography performed at the time of the procedure may be reported in certain instances, such as when no prior catheter-based angiography study has been performed or a significant change in the patient's condition has occurred since the time of a prior study. Diagnostic coronary angiography services reported at the same surgical session as a percutaneous revascularization service may be reported separately. Only one base code from the percutaneous coronary intervention (PCI) codes should be reported for revascularization of a major coronary artery and its branches or revascularization of a bypass graft. The PCI base codes are 92920, 92924, 92928, 92933, 92937, 92941, and 92943, and the most intensive service for the target vessel should be selected. Services performed on additional branches should be reported using the add-on codes throughout the section. See CPT section guidelines for details on hierarchy and examples. Code 92941 reports a single vessel. For additional vessels treated, see 92920-92938, 92943, or 92944. Medicare and some other payers may require HCPCS Level II code C9606 be reported for this service if drug eluting stents are used.

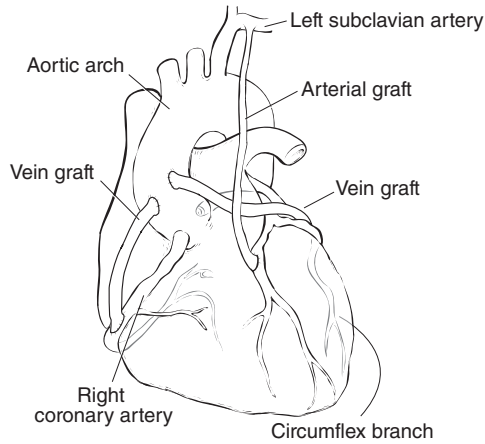
ICD-10-CM Diagnostic Codes

I20.0 Unstable angina
I21.01 ST elevation (STEMI) myocardial infarction involving left main coronary artery

I21.02 ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery
I21.09 ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall
I21.11 ST elevation (STEMI) myocardial infarction involving right coronary artery
I21.19 ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall
I21.21 ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery
I21.29 ST elevation (STEMI) myocardial infarction involving other sites
I21.4 Non-ST elevation (NSTEMI) myocardial infarction
I21.A1 Myocardial infarction type 2
I22.0 Subsequent ST elevation (STEMI) myocardial infarction of anterior wall
I22.1 Subsequent ST elevation (STEMI) myocardial infarction of inferior wall
I22.2 Subsequent non-ST elevation (NSTEMI) myocardial infarction
I22.8 Subsequent ST elevation (STEMI) myocardial infarction of other sites
I24.0 Acute coronary thrombosis not resulting in myocardial infarction
I24.8 Other forms of acute ischemic heart disease
I25.10 Atherosclerotic heart disease of native coronary artery without angina pectoris **A**
I25.110 Atherosclerotic heart disease of native coronary artery with unstable angina pectoris **A**
I25.111 Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm **A**
I25.5 Ischemic cardiomyopathy
I25.6 Silent myocardial ischemia
I25.710 Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris **A**
I25.711 Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm **A**
I25.718 Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris **A**
I25.720 Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris **A**
I25.721 Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm **A**
I25.728 Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris **A**
I25.730 Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris **A**
I25.731 Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm **A**
I25.738 Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris **A**
I25.750 Atherosclerosis of native coronary artery of transplanted heart with unstable angina
I25.760 Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina **A**
I25.761 Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm **A**
I25.768 Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris **A**

93564

- + **93564** Injection procedure during cardiac catheterization including imaging supervision, interpretation, and report; for selective opacification of aortocoronary venous or arterial bypass graft(s) (eg, aortocoronary saphenous vein, free radial artery, or free mammary artery graft) to one or more coronary arteries and in situ arterial conduits (eg, internal mammary), whether native or used for bypass to one or more coronary arteries during congenital heart catheterization, when performed (List separately in addition to code for primary procedure)



Explanation

The physician injects dye into the coronary arteries to evaluate function during congenital heart catheterization procedures. This code is used when the physician chooses to visualize a specific aortocoronary vessel bypass graft that communicates with other coronary arteries or conduits. Any required repositioning of catheters or use of automatic power injectors is included in this procedure, as is imaging supervision, interpretation, and report.

Coding Tips

When medically necessary, report moderate (conscious) sedation provided by the performing physician with 99151-99153. When provided by another physician, report 99155-99157. Report 93564 in addition to 93530-93533. This procedure includes any radiological supervision, interpretation, and report. Contrast administration performed during cardiac catheterization for congenital conditions is reported separately with 93563-93568. Report 93567 for supravalvular ascending aortogram done at the same session as cardiac catheterization. Injection procedures do not include catheter placement when applicable; however, repositioning of the catheter and automatic power injections should not be reported separately. Do not report 93564 with 93452-93461. Do not report 93564 with 33418, 0345T, 0483T, 0484T, 0544T, or 0545T for coronary angiography intrinsic to the valve repair or annulus reconstruction.

ICD-10-CM Diagnostic Codes

This/these CPT code(s) are add-on code(s). See the primary procedure code that this code is performed with for your ICD-10-CM code selections.

AMA: 93564 2018,Jan,8; 2018,Feb,11; 2017,Jan,8; 2016,Mar,5; 2016,Jan,13; 2015,Jan,16; 2014,Jan,11; 2014,Dec,6

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
93564	1.13	0.39	0.26	1.78
Facility RVU	Work	PE	MP	Total
93564	1.13	0.39	0.26	1.78

	FUD	Status	MUE	Modifiers				IOM Reference
93564	N/A	A	1(3)	N/A	N/A	N/A	80*	None

* with documentation

Terms To Know

aortography. Radiographic visualization of the aorta and its branches by injecting contrast medium through percutaneous puncture or catheterization technique.

bypass graft. Surgically created alternative blood vessel used to reroute blood flow around an area of obstruction or disease.

catheter. Flexible tube inserted into an area of the body for introducing or withdrawing fluid.

conduit. Surgically created channel for the passage of fluids.

in situ. Located in the natural position or contained within the origin site, not spread into neighboring tissue.

injection. Forcing a liquid substance into a body part such as a joint or muscle.

instillation. Administering a liquid slowly over time, drop by drop.

supervision and interpretation. Radiology services that usually contain an invasive component and are reported by the radiologist for supervision of the procedure and the personnel involved with performing the examination, reading the film, and preparing the written report.

CPT Index

A

Abdomen, Abdominal

- Aorta
 - Aneurysm, 34701-34712, 34813, 34830-34832, 34841-34848, 35081-35103 [34717, 34718]
 - Thromboendarterectomy, 35331
- Aortic Aneurysm, 34701-34712, 34813, 34830-34832, 34841-34848, 35081-35103 [34717, 34718]
- Artery
 - Ligation, 37617
- Bypass Graft, 35907
- Exploration
 - Blood Vessel, 35840
- Insertion
 - Venous Shunt, 49425
- Intraperitoneal
 - Catheter Exit Site, 49436
 - Catheter Insertion, 49425, 49435
 - Shunt
 - Insertion, 49425
 - Ligation, 49428
 - Removal, 49429
 - Revision, 49426
- Repair
 - Blood Vessel, 35221
 - with
 - Other Graft, 35281
 - Vein Graft, 35251
- Revision
 - Venous Shunt, 49426
- Ultrasound, 76700-76706
- Wall
 - Reconstruction, 49905
- X-ray, 74018-74021

ABG, 82803-82805

Ablation

- Atria, 33254-33259
- Endovenous, 36473-36479, 0524T [36482, 36483]
- Heart
 - Arrhythmogenic Focus, 93650-93657
 - Intracardiac Catheter, 93650-93657
 - Open, 33250-33261
 - Intracardiac Pacing and Mapping, 93631
 - Follow-up Study, 93624
 - Stimulation and Pacing, 93623
- Lung
 - Tumor
 - Cryoablation, [32994]
 - Radiofrequency, 32998
- Pulmonary Tumor
 - Cryoablation, [32994]
 - Radiofrequency, 32998
- Radiofrequency
 - Lung Tumor(s), 32998
- Supraventricular Arrhythmogenic Focus, 33250-33251
- Vein
 - Endovenous, 36473-36479, 0524T [36482, 36483]
- Ventricular Arrhythmogenic Focus, 33261

Abscess

- Drainage
 - with X-ray, 75989
- Lung
 - Open Drainage, 32200
- Lymph Node, 38300-38305
- Incision and Drainage, 38300-38305
- Neck
 - Incision and Drainage, 21501-21502
- Thoracostomy, 32551
- Thorax
 - Bone Cortex, 21510
 - Incision and Drainage, 21501-21502

Acidity/Alkalinity

- Blood Gasses, 82800-82805

Activated Partial Thromboplastin Time, 85730-85732

Adhesion, Adhesions

- Lungs
 - Pneumolysis, 32124, 32940

Administration

- Health Risk Assessment, 96160-96161
- Injection
 - Intramuscular Antibiotic, 96372
 - Therapeutic, Diagnostic, Prophylactic Intra-arterial, 96373
 - Intramuscular, 96372
 - Intravenous, 96374-96376
 - Subcutaneous, 96372
- Occlusive Substance During Bronchoscopy, 31634
- Pharmacologic Agent w/Monitoring with Monitoring, 93463

Advance Care Planning, 99497-99498

Advance Directives, 99497-99498

Advanced Life Support

- Emergency Department Services, 99281-99288

Physician Direction, 99288

AFBG, 35539-35540, 35646

Afluria, 90657-90658

Aggregation

- Platelet, 85576

AICD (Pacing Cardioverter-Defibrillator), 33223, 93282, 93289, 93292, 93295, 0571T-0580T

Heart

- Defibrillator, 33240-33249, 93282, 93292, 93295 [33230, 33231, 33262, 33263, 33264]
- Pacemaker, 33212-33214, 33233-33237 [33221, 33227, 33228, 33229]

Alcohol

- Abuse Screening and Intervention, 99408-99409

Allograft Preparation

- Heart, 33933, 33944
- Lung, 32855-32856, 33933

Allograft

- Aortic Valve, 33406, 33413
- Lung Transplant, 32850

ALS, 99288

Aminotransferase

- Aspartate (SGOT), 84450

Analysis

- Cardiac Rhythm Monitor System, 93285, 93291, 93298
- Cardiac Stimulator, Wireless, 0521T
- Cardiovascular Physiologic Monitoring System, 93290, 93297
- Electronic
 - Antitachycardia Pacemaker, 93724
 - Cardioverter-Defibrillator Data Analysis, 93289, 93295-93296
 - Initial Evaluation, 93640-93641
 - Substernal, Implantable, 0575T-0577T
 - Leads, 93640-93641
 - Pacemaker, 93288, 93293-93294
 - Wearable Cardiac Device, 93288
- Implantable Defibrillator, 93282-93284, 93287, 93289, 93295-93296
- Pacemaker, 93279-93281, 93288, 93293-93294
- Physiologic Data, Remote, [99091, 99453, 99454, 99457]

Anastomosis

- Arteriovenous Fistula
 - Direct, 36821
 - Revision, 36832-36833
 - with Thrombectomy, 36833
 - without Thrombectomy, 36832
 - with Bypass Graft, 35686
 - with Graft, 36825-36830, 36832
 - with Thrombectomy, 36831

Anastomosis — continued

- Artery
 - to Aorta, 33606
- Broncho-Bronchial, 32486
- Caval to Mesenteric, 37160
- Cavopulmonary, 33622, 33768
- Excision
 - Trachea, 31781
- Intrahepatic Portosystemic, 37182-37183
- Portocaval, 37140
- Pulmonary, 33606
- Renoportal, 37145
- Splenorenal, 37180-37181
- Vein
 - Saphenopopliteal, 34530
 - Vein to Vein, 37140-37183

Anatomic

- Guide, 3D Printed, 0561T-0562T
- Model, 3D Printed, 0559T-0560T

Anesthesia

- Pleurectomy, 32310-32320, 32656

Aneurysm Repair

- Aorta
 - Abdominal, 34701-34712, 34813, 34830-34832, 34841-34848, 35081-35103 [34717, 34718]
 - Thoracoabdominal, 33877
- Axillary Artery, 35011-35013
- Brachial Artery, 35011-35013
- Carotid Artery, 35001-35002
- Celiac Artery, 35121-35122
- Femoral Artery, 35141-35142
- Hepatic Artery, 35121-35122
- Iliac Artery, 34702-34713, 35131-35132 [34717, 34718]
- Innominate Artery, 35021-35022
- Mesenteric Artery, 35121-35122
- Popliteal Artery, 35151-35152
- Radial Artery, 35045
- Renal Artery, 35121-35122
- Splenic Artery, 35111-35112
- Subclavian Artery, 35001-35002, 35021-35022
- Thoracic Aorta, 33880-33889
- Thoracoabdominal Aorta, 33877
- Ulnar Artery, 35045

Aneurysm, Aorta, Abdominal

- Screening Study, 76706

Angiography

- Abdominal Aorta, 34701-34711 [34717, 34718]
- Aortography
 - Injection, 93567
- Arteriovenous Shunt, 36901-36906
- Atrial, 93565-93566
- Bypass Graft, 93455, 93457, 93459-93461
- Carotid Artery, 36221-36228
- Cervico-Vertebral Arch, 36221-36226
- Congenital Heart, 93563-93564
- Coronary Artery, 93454-93461, 93563
- Flow Velocity Measurement During Angiography, 93571-93572
- Dialysis Circuit, Diagnostic, 36901
- with Balloon Angioplasty, 36902
- with Mechanical Thrombectomy, 36904-36906
- with Stent Placement, 36903
- Endovascular Repair, 34701-34713 [34717, 34718]
- Head
 - with Catheterization, 93454-93461
- Heart Vessels
 - Injection, 93454-93461, 93563, 93565-93566
- Innominate Artery, 36222-36223, 36225
- Intracranial Carotid, 36223-36224
- Left Heart
 - Injection, 93458-93459, 93565
- Lung
 - Injection Pulmonary Artery, 93568
- Non-cardiac Vascular Flow Imaging, 78445
- Nuclear Medicine, 78445

Angiography — continued

- Right Heart
 - Injection, 93456-93457, 93566
 - Shunt, Dialysis, 36901-36906
 - Subclavian Artery, 36225
 - Transcatheter Therapy
 - Embolization, 75898
 - Infusion, 75898
 - Ventricular, 93565-93566
 - Vertebral Artery, 36221, 36225-36226, 36228
- ### Angioplasty
- Aorta, [37246, 37247]
 - Axillary Artery, [37246, 37247]
 - Blood Vessel Patch, 35201-35286
 - Brachiocephalic Artery, [37246, 37247]
 - Common Carotid Artery with Stent Placement, 37217-37218
 - Coronary Artery
 - Percutaneous Transluminal, [92920, 92921]
 - with Atherectomy, [92924, 92925, 92933, 92934, 92937, 92938, 92941, 92943, 92944]
 - with Stent, [92928, 92929, 92933, 92934, 92937, 92938, 92941, 92943, 92944]
 - Dialysis Circuit, 36902-36903, 36905-36907
 - Femoral Artery, 37224-37227
 - for Revascularization
 - Coronary, [92937, 92938, 92941, 92943, 92944]
 - Coronary Bypass Graft(s), [92937, 92938, 92941, 92943, 92944]
 - Femoral, 37224-37227
 - Iliac, 37220-37223
 - Peroneal, 37228-37235
 - Popliteal, 37224-37227
 - Tibial, 37228-37235
 - Iliac Artery, 37220-37223
 - Innominate Artery with Stent Placement, 37217-37218
 - Percutaneous Transluminal
 - Coronary, [92920, 92921]
 - Dialysis Circuit, 36905-36907
 - Pulmonary, 92997-92998
 - Peroneal Artery, 37228-37235
 - Popliteal Artery, 37224-37227
 - Pulmonary Artery
 - Percutaneous Transluminal, 92997-92998
 - Renal or Visceral Artery, [37246, 37247]
 - Subclavian Artery, [37246, 37247]
 - Tibioperoneal Artery, 37228-37235
 - Vein Patch Graft, 35879, 35884
 - Venous, [37248, 37249]
 - Visceral Artery, [37246, 37247]
 - Endovascular, 34841-34848
 - with Placement Intravascular Stent, 37217-37218, 37236-37239
- ### Angioscopy
- Noncoronary vessels, 35400
- ### Antibiotic Administration
- Injection, 96372-96376
- ### Antibiotic Sensitivity, 87181
- ### Antibody Identification
- Leukocyte Antibodies, 86828-86829
 - Solid Phase Assay, 86828-86829
- ### Antibody
- Cardiolipin, 86147
 - Human Leukocyte Antigens (HLA), 86828-86829
 - Streptokinase, 86590
- ### Anticoagulant Management, 93792-93793
- ### Antigen Detection
- Immunofluorescence, 87271
 - Cytomegalovirus, 87271
- ### Antistreptokinase Titer, 86590