Optum

Coding Companion

Cardiology/ Cardiothoracic/ Vascular Surgery

A comprehensive illustrated guide to coding and reimbursement

2027

optumcoding.com

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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/HCPCS 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/HCPCS 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 Optum *Coding Companion* series display in their resequenced order. **Resequenced codes are enclosed in brackets [ ] for easy identification.**

ICD-10-CM

The most current ICD-10-CM codes are provided, each listed with their full official description. Refer to the ICD-10-CM book for more ICD-10-CM coding information.

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.

Appendix Codes and Descriptions

Some CPT/HCPCS codes are presented in a less comprehensive format in the appendix. The CPT/HCPCS codes appropriate to the specialty are included in the appendix with the official CPT/HCPCS code description, followed by an easy-to-understand explanation, relative value units, and Medicare edits. The Relative Value Unit/Medicare Edits table will not be included with any CPT/HCPCS code with a "0" (zero) value.

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

- HCPCS
- E/M
- 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 Edits, RVUs, HCPCS, and Other Coding Updates

The *Coding Companion* 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 32.3, the most current version available at press time. CCI edits are updated quarterly and will be posted on the product updates page listed below. The website address is http://www.optumcoding.com/ProductUpdates/. The 2027 edition password is: **XXXXX.** Log in frequently to ensure you receive the most current updates.

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

or **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 xv 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.

Sample Page and Key

The following pages provide a sample page from the book displaying the format of *Coding Companion* with each element identified and explained.

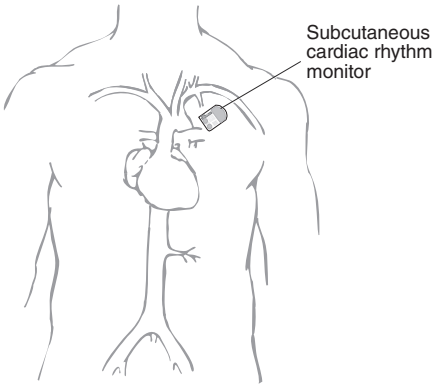
33285-33286

1

33285 Insertion, subcutaneous cardiac rhythm monitor, including programming

33286 Removal, subcutaneous cardiac rhythm monitor

2



Explanation

3

The physician implants or removes an electronic device that is capable of recording heartrates and rhythms for over one year (subcutaneous cardiac rhythm monitor, cardiac event recorder, implantable loop recorder or ILR). In 33285, the physician uses a scalpel to make a small parasternal incision and dissects down to the level of subcutaneous tissue located over the left pectoral or mammary area. The monitor is implanted into the subcutaneous tissue. Electrodes that sense heart activity are located on the surface of the monitor, making it unnecessary to place transvenous leads. The device continuously and automatically monitors the heart's electrical activity when sensing the patient's rapid, irregular, or slow heartrate or can also be prompted by the patient in the course of experiencing symptoms. Programming of the device is included in this service. In 33286, the physician removes the monitor when sufficient information regarding the heart's activities has been obtained or when the batteries run out by incising down to the level of the recorder and removing it. In either surgery, the incision is closed with sutures. This type of recorder is capable of storing many separate events. When appropriate, a "programmer" is used by the physician to retrieve the information that can be displayed, stored, or printed.

Coding Tips

4

Code 33285 includes programming. For subsequent analysis and/or reprogramming, see 93285, 93291, and 93298.

ICD-10-CM Diagnostic Codes

5

G90.09	Other idiopathic peripheral autonomic neuropathy
I25.2	Old myocardial infarction
I44.0	Atrioventricular block, first degree
I44.1	Atrioventricular block, second degree
I44.2	Atrioventricular block, complete
I45.5	Other specified heart block
I45.6	Pre-excitation syndrome
I47.0	Re-entry ventricular arrhythmia
I47.11	Inappropriate sinus tachycardia, so stated
I47.21	Torsades de pointes
T82.518A	Breakdown (mechanical) of other cardiac and vascular devices and implants, initial encounter
T82.528A	Displacement of other cardiac and vascular devices and implants, initial encounter
T82.538A	Leakage of other cardiac and vascular devices and implants, initial encounter
T82.598A	Other mechanical complication of other cardiac and vascular devices and implants, initial encounter
T82.7XXA	Infection and inflammatory reaction due to other cardiac and vascular devices, implants and grafts, initial encounter
T82.827A	Fibrosis due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.837A	Hemorrhage due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.847A	Pain due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.867A	Thrombosis due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.897A	Other specified complication of cardiac prosthetic devices, implants and grafts, initial encounter
Z45.09	Encounter for adjustment and management of other cardiac device

Not all ICD-10-CM Codes are shown. Sample only.

Associated HCPCS Codes

6

C1764	Event recorder, cardiac (implantable)
E0616	Implantable cardiac event recorder with memory, activator, and programmer

AMA: **33285** 2019,Oct; 2019,Apr **33286** 2019,Apr

Relative Value Units/Medicare Edits

7

Non-Facility RVU	Work	PE	MP	Total
33285	1.53	122.46	0.35	124.34
33286	1.5	2.03	0.34	3.87
Facility RVU	**Work**	**PE**	**MP**	**Total**
33285	1.53	0.69	0.35	2.57
33286	1.5	0.68	0.34	2.52

	FUD	Status	MUE	Modifiers				IOM Reference
33285	0	A	1(3)	51	N/A	N/A	N/A	None
33286	0	A	1(3)	51	N/A	N/A	N/A	

* with documentation

Terms To Know

8

event recorder. Portable, ambulatory heart monitor worn by the patient that makes electrocardiographic recordings of the length and frequency of aberrant cardiac rhythm to help diagnose heart conditions and to assess pacemaker functioning or programming.

implantable cardiovascular monitor. Implantable electronic device that stores cardiovascular physiologic data such as intracardiac pressure waveforms collected from internal sensors or data such as weight and blood pressure collected from external sensors. The information stored in these devices is used as an aid in managing patients with heart failure and other cardiac conditions that are non-rhythm related. The data may be transmitted via local telemetry or remotely to a surveillance technician or an internet-based file server.

1. CPT/HCPCS Codes and Descriptions

This edition of *Coding Companion* is updated with CPT and HCPCS codes for year 2027.

The following icons are used in *Coding Companion:*

- ● This CPT code is new for 2027.
- ▲ This CPT code description is revised for 2027.
- ✚ This CPT code is an add-on code.

Add-on codes are not subject to bilateral or multiple procedure rules, reimbursement reduction, or appending modifier 50 or 51. Add-on codes describe additional intraservice work associated with the primary procedure performed by the same physician on the same date of service and are not reported as stand-alone procedures. Add-on codes for procedures performed on bilateral structures are reported by listing the add-on code twice.

- ★ This CPT code is identified by CPT as appropriate for audio-visual telemedicine services. Note: This icon is not appended to the synchronous audio-video visit codes 98000-98007.

The Centers for Medicare and Medicaid Services (CMS) have identified services that may be performed via telehealth. Payers may require telehealth/telemedicine to be reported with place of service 02 Telehealth Provided Other than the Patient's Home or 10 Telehealth Provided in Patient's Home and modifier 93 or 95 appended. If specialized equipment is used at the originating site, HCPCS Level II code Q3014 may be reported. Individual payers should be contacted for additional or different guidelines regarding telehealth/telemedicine services. Documentation should include the type of technology used for the treatment in addition to the patient evaluation, treatment, and consents.

According to CPT guidelines, the codes listed below may be used for reporting audio-only telemedicine services, when modifier 93 Synchronous Telemedicine Service Rendered Via Telephone or Other Real-Time Interactive Audio-Only Telecommunications System, is appended. These procedures involve electronic communication using interactive telecommunications equipment that at a minimum includes audio.

90785	90791	90792	90832	90833	90834	90836
90837	90838	90839	90840	90845	90846	90847
92507	92508	92521	92522	92523	92524	96041
96110	96116	96121	96156	96158	96159	96160
96161	96164	96165	96167	96168	96170	96171
97802	97803	97804	99406	99407	99408	99409
99497	99498					

2. Illustrations

The illustrations that accompany the *Coding Companion* series provide coders a better understanding of the medical procedures referenced by the codes and data. The graphics offer coders a visual link between the technical language of the operative report and the cryptic descriptions accompanying the codes. Although most pages will have an illustration, there will be some pages that do not.

3. Explanation

Every CPT code or series of similar codes is presented with its official CPT code description. However, sometimes these descriptions do not provide the coder with sufficient information to make a proper code selection. In *Coding Companion*, an easy-to-understand step-by-step clinical description of the procedure is provided. Technical language that might be used by the physician is included and defined. *Coding Companion* describes a common method of performing each procedure.

4. Coding Tips

Coding tips provide information on how the code should be used, provides related CPT codes, and offers help concerning common billing errors, modifier usage, and anesthesia. This information comes from consultants and subject matter experts at Optum and from the coding guidelines provided in the CPT book and by the Centers for Medicare and Medicaid Services (CMS).

5. ICD-10-CM Diagnostic Codes

ICD-10-CM diagnostic codes listed are common diagnoses or reasons the procedure may be necessary. This list in most cases is inclusive to the specialty. Some ICD-10-CM codes are further identified with the following icons:

- N Newborn: 0
- P Pediatric: 0-17
- M Maternity: 9-64
- A Adult: 15-124
- ☑ Laterality

Please note that in some instances the ICD-10-CM codes for only one side of the body (right) have been listed with the CPT code. The associated ICD-10-CM codes for the other side and/or bilateral may also be appropriate. Codes that refer to the right or left are identified with the ☑ icon to alert the user to check for laterality. In some cases, not every possible code is listed and the ICD-10-CM book should be referenced for other valid codes.

6. Associated HCPCS Codes

Medicare and some other payers require the use of HCPCS Level II codes and not CPT codes when reporting certain services. The HCPCS codes and their description are displayed in this field. If there is not a HCPCS code for this service, this field will not be displayed.

7. AMA References

The AMA references for *CPT Assistant* are listed by CPT code, with the most recent reference listed first. Generally only the last six years of references are listed.

8. Relative Value Units/Medicare Edits

Medicare edits are provided for most codes. These Medicare edits were current as of November 2026.

Relative Value Units

In a resource based relative value scale (RBRVS), services are ranked based on the relative costs of the resources required to provide those services as opposed to the average fee for the service, or average prevailing Medicare charge. The Medicare RBRVS defines three distinct components affecting the value of each service or procedure:

- Physician work component, reflecting the physician's time and skill
- Practice expense (PE) component, reflecting the physician's rent, staff, supplies, equipment, and other overhead
- Malpractice (MP) component, reflecting the relative risk or liability associated with the service
- Total RVUs are a sum of the work, PE, and MP RVUs

There are two groups of RVUs listed for each CPT code. The first RVU group is for facilities (Facility RVU), which includes provider services performed in hospitals, ambulatory surgical centers, or skilled nursing facilities. The second RVU group is for nonfacilities (Non-Facility RVU), which represents provider services performed in physician offices, patient's homes, or other nonhospital settings. The appendix includes RVU components for facility and non-facility. Because no values have been established by CMS for the Category III codes, no relative value unit/grids are identified. Refer to the RBRVS tool or guide for the RVUs when the technical (modifier TC) or professional (modifier 26) component of a procedure is provided.

99202-99205

99202 Office or other outpatient visit for the evaluation and management of a new patient, which requires a medically appropriate history and/or examination and straightforward medical decision making. When using total time on the date of the encounter for code selection, 15 minutes must be met or exceeded.

99203 Office or other outpatient visit for the evaluation and management of a new patient, which requires a medically appropriate history and/or examination and low level of medical decision making. When using total time on the date of the encounter for code selection, 30 minutes must be met or exceeded.

99204 Office or other outpatient visit for the evaluation and management of a new patient, which requires a medically appropriate history and/or examination and moderate level of medical decision making. When using total time on the date of the encounter for code selection, 45 minutes must be met or exceeded.

99205 Office or other outpatient visit for the evaluation and management of a new patient, which requires a medically appropriate history and/or examination and high level of medical decision making. When using total time on the date of the encounter for code selection, 60 minutes must be met or exceeded.

Explanation

Providers report these codes for new patients being seen in the doctor's office, a multispecialty group clinic, or other outpatient environment. All require a medically appropriate history and/or examination. Code selection is based on the level of medical decision making (MDM) or total time personally spent by the physician and/or other qualified health care professional(s) on the date of the encounter. Factors to be considered in MDM include the number and complexity of problems addressed during the encounter, amount and complexity of data requiring review and analysis, and the risk of complications and/or morbidity or mortality associated with patient management. The most basic service is represented by 99202, which entails straightforward MDM. If time is used for code selection, a total time of 15 minutes must be met or exceeded on the day of the encounter. Report 99203 for a visit requiring a low level of MDM or meeting or exceeding 30 minutes of total time; 99204 for a visit requiring a moderate level of MDM or meeting or exceeding 45 minutes of total time; and 99205 for a visit requiring a high level of MDM or meeting or exceeding 60 minutes of total time.

Coding Tips

These codes are used to report office or other outpatient services for a new patient. A medically appropriate history and physical examination, as determined by the treating provider, should be documented. The level of history and physical examination are not considered when determining the level of service. Codes should be selected based upon the current CPT Medical Decision Making table. Alternatively, time alone may be used to select the appropriate level of service. Total time for reporting these services includes face-to-face and non-face-to-face time personally spent by the physician or other qualified health care professional on the date of the encounter. Medicare has identified these codes as telehealth/telemedicine services. CMS requires the use of a place of service (POS) indicator: POS 02 for telehealth services when the originating site is not the patient's home and POS 10 for telehealth services when the originating site is the patient's home. For prolonged services applicable to 99205, see 99417; for Medicare, see G2212. Medicare and commercial payers should be contacted regarding their coverage guidelines. For office or other outpatient services for an established patient, see 99211-99215.

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: **99202** 2024,Sep; 2024,Jun; 2024,Jan; 2023,Dec; 2023,Nov; 2023,Oct; 2023,Sep; 2023,Aug; 2023,May; 2023,Apr; 2023,Mar; 2022,Dec; 2022,Nov; 2022,Oct; 2022,Sep; 2022,Aug; 2022,Jul; 2022,Jun; 2022,Apr; 2022,Feb; 2022,Jan; 2021,Nov; 2021,Oct; 2021,Sep; 2021,Aug; 2021,Jul; 2021,Jun; 2021,May; 2021,Apr; 2021,Mar; 2021,Feb; 2021,Jan; 2020,Dec; 2020,Nov; 2020,Oct; 2020,Sep; 2020,Jun; 2020,May; 2020,Mar; 2020,Feb; 2020,Jan; 2019,Oct; 2019,Jul; 2019,Jun; 2019,Feb; 2019,Jan; 2018,Oct; 2018,Sep; 2018,Apr; 2018,Mar **99203** 2024,Oct; 2024,Sep; 2024,Jun; 2024,Jan; 2023,Dec; 2023,Nov; 2023,Oct; 2023,Sep; 2023,Aug; 2023,May; 2023,Apr; 2023,Mar; 2022,Dec; 2022,Nov; 2022,Oct; 2022,Sep; 2022,Aug; 2022,Jul; 2022,Jun; 2022,Apr; 2022,Feb; 2022,Jan; 2021,Nov; 2021,Oct; 2021,Sep; 2021,Aug; 2021,Jul; 2021,Jun; 2021,May; 2021,Apr; 2021,Mar; 2021,Feb; 2021,Jan; 2020,Dec; 2020,Nov; 2020,Oct; 2020,Sep; 2020,Jun; 2020,May; 2020,Mar; 2020,Feb; 2020,Jan; 2019,Oct; 2019,Jul; 2019,Jun; 2019,Feb; 2019,Jan; 2018,Oct; 2018,Sep; 2018,Apr; 2018,Mar **99204** 2024,Oct; 2024,Sep; 2024,Jun; 2024,Jan; 2023,Dec; 2023,Nov; 2023,Oct; 2023,Sep; 2023,Aug; 2023,May; 2023,Apr; 2023,Mar; 2022,Dec; 2022,Nov; 2022,Oct; 2022,Sep; 2022,Aug; 2022,Jul; 2022,Jun; 2022,Apr; 2022,Feb; 2022,Jan; 2021,Nov; 2021,Oct; 2021,Sep; 2021,Aug; 2021,Jul; 2021,Jun; 2021,May; 2021,Apr; 2021,Mar; 2021,Feb; 2021,Jan; 2020,Dec; 2020,Nov; 2020,Oct; 2020,Sep; 2020,Jun; 2020,May; 2020,Mar; 2020,Feb; 2020,Jan; 2019,Oct; 2019,Jul; 2019,Jun; 2019,Feb; 2019,Jan; 2018,Oct; 2018,Sep; 2018,Apr; 2018,Mar **99205** 2024,Oct; 2024,Sep; 2024,Mar; 2024,Jan; 2023,Dec; 2023,Nov; 2023,Oct; 2023,Sep; 2023,Aug; 2023,May; 2023,Apr; 2023,Mar; 2022,Dec; 2022,Nov; 2022,Oct; 2022,Sep; 2022,Aug; 2022,Jul; 2022,Jun; 2022,Apr; 2022,Feb; 2022,Jan; 2021,Nov; 2021,Oct; 2021,Sep; 2021,Aug; 2021,Jul; 2021,Jun; 2021,May; 2021,Apr; 2021,Mar; 2021,Feb; 2021,Jan; 2020,Dec; 2020,Nov; 2020,Oct; 2020,Sep; 2020,Jun; 2020,May; 2020,Mar; 2020,Feb; 2020,Jan; 2019,Oct; 2019,Jul; 2019,Jun; 2019,Feb; 2019,Jan; 2018,Oct; 2018,Sep; 2018,Apr; 2018,Mar

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
99202	0.93	1.16	0.08	2.17
99203	1.6	1.59	0.16	3.35
99204	2.6	2.18	0.24	5.02
99205	3.5	2.79	0.33	6.62
Facility RVU	**Work**	**PE**	**MP**	**Total**
99202	0.93	0.4	0.08	1.41
99203	1.6	0.68	0.16	2.44
99204	2.6	1.13	0.24	3.97
99205	3.5	1.57	0.33	5.4

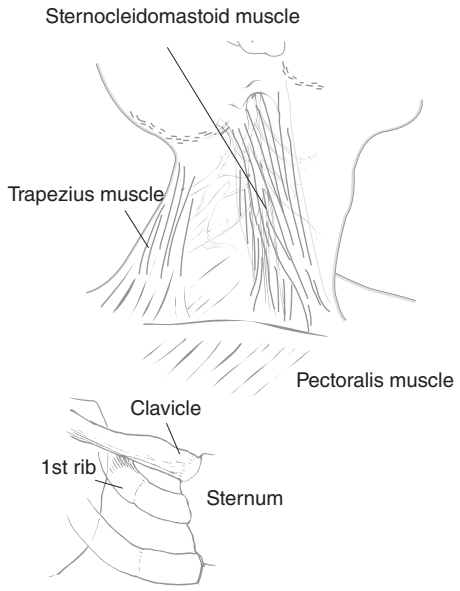
	FUD	Status	MUE	Modifiers				IOM Reference
99202	N/A	A	1(2)	N/A	N/A	N/A	80*	None
99203	N/A	A	1(2)	N/A	N/A	N/A	80*	
99204	N/A	A	1(2)	N/A	N/A	N/A	80*	
99205	N/A	A	1(2)	N/A	N/A	N/A	80*	

* with documentation

21501-21502

21501 Incision and drainage, deep abscess or hematoma, soft tissues of neck or thorax;

21502 with partial rib ostectomy



A deep abscess or hematoma of the soft tissues of the neck or thorax is incised and drained

Explanation

The physician performs surgery to remove or drain an abscess or hematoma from the deep soft tissues of the neck or thorax. With proper anesthesia administered, the physician makes an incision overlying the site of the abscess or hematoma of the neck or thorax. Dissection is carried down through the deep subcutaneous tissues and may be continued into the fascia or muscle to expose the abscess or hematoma. The incision may be extended if the mass is larger than expected. The abscess or hematoma is incised and the contents are drained. The area is irrigated and the incision is repaired in layers with sutures, staples, and/or Steri-strips; closed with drains in place; or simply left open to further facilitate drainage of infection. Report 21502 if a partial rib ostectomy is performed during this procedure.

Coding Tips

If significant additional time and effort are documented, append modifier 22 and submit a cover letter and operative report. For a biopsy of the soft tissue of the neck or thorax, see 21550. For subfascial incision and drainage, see 22010–22015.

ICD-10-CM Diagnostic Codes

L03.221 Cellulitis of neck
L03.312 Cellulitis of back [any part except buttock]
L03.313 Cellulitis of chest wall
S10.83XA Contusion of other specified part of neck, initial encounter
S20.211A Contusion of right front wall of thorax, initial encounter
S20.212A Contusion of left front wall of thorax, initial encounter
S20.213A Contusion of bilateral front wall of thorax, initial encounter
S20.214A Contusion of middle front wall of thorax, initial encounter
S20.221A Contusion of right back wall of thorax, initial encounter
S20.222A Contusion of left back wall of thorax, initial encounter
S20.223A Contusion of bilateral back wall of thorax, initial encounter
S20.224A Contusion of middle back wall of thorax, initial encounter
T81.41XA Infection following a procedure, superficial incisional surgical site, initial encounter
T81.42XA Infection following a procedure, deep incisional surgical site, initial encounter

AMA: **21501** 2023,Apr; 2021,Sep **21502** 2023,Apr; 2021,Sep

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
21501	3.98	9.96	0.82	14.76
21502	7.55	5.91	1.85	15.31
Facility RVU	**Work**	**PE**	**MP**	**Total**
21501	3.98	5.45	0.82	10.25
21502	7.55	5.91	1.85	15.31

	FUD	Status	MUE	Modifiers				IOM Reference
21501	90	A	3(3)	51	N/A	N/A	N/A	None
21502	90	A	1(3)	51	N/A	N/A	80	

* with documentation

Terms To Know

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

cellulitis. Infection of the skin and subcutaneous tissues, most often caused by *Staphylococcus* or *Streptococcus* bacteria secondary to a cutaneous lesion. Progression of the inflammation may lead to abscess and tissue death, or even systemic infection-like bacteremia.

contusion. Superficial injury (bruising) produced by impact without a break in the skin.

drain. Device that creates a channel to allow fluid from a cavity, wound, or infected area to exit the body.

hematoma. Tumor-like collection of blood in some part of the body caused by a break in a blood vessel wall, usually as a result of trauma.

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

infected postoperative seroma. Infection within a pocket of serum following surgery.

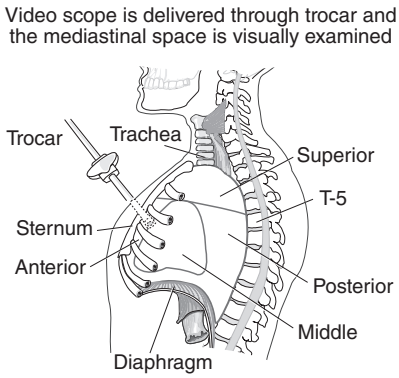
ostectomy. Excision of bone.

secondary. Second in order of occurrence or importance, or appearing during the course of another disease or condition.

soft tissue. Nonepithelial tissues outside of the skeleton that includes subcutaneous adipose tissue, fibrous tissue, fascia, muscles, blood and lymph vessels, and peripheral nervous system tissue.

32606

32606 Thoracoscopy, diagnostic (separate procedure); mediastinal space, with biopsy



The mediastinal space is the general region between the left and right lungs

Explanation

The physician examines the inside of the mediastinal space through 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 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 tissue selected for biopsy is identified and a biopsy taken using a device inserted through the endoscope. 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

This separate procedure by definition is usually a component of a more complex service and is not identified separately. When performed alone or with other unrelated procedures/services, it may be reported. If performed alone, list the code; if performed with other procedures/services, list the code and append modifier 59 or an X{EPSU} modifier. Report the appropriate endoscopy for each anatomic site examined. Surgical thoracoscopy (video-assisted thoracic surgery or VATS) always includes diagnostic thoracoscopy. For diagnostic thoracoscopy in the mediastinal space, see 32601. For biopsy of the lung or mediastinum by percutaneous needle, see 32408. For mediastinoscopy, with or without biopsy, see 39401.

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.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
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: **32606** 2021,Apr

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
32606	8.39	3.14	2.06	13.59
Facility RVU	**Work**	**PE**	**MP**	**Total**
32606	8.39	3.14	2.06	13.59

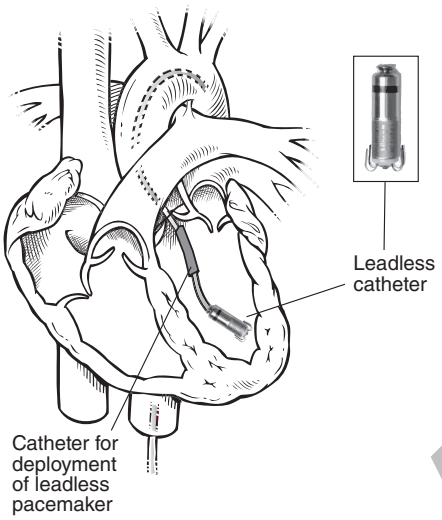
	FUD	Status	MUE	Modifiers				IOM Reference
32606	0	A	1(3)	51	N/A	N/A	80*	None

* with documentation

[33274, 33275]

33274 Transcatheter insertion or replacement of permanent leadless pacemaker, right ventricular, including imaging guidance (eg, fluoroscopy, venous ultrasound, ventriculography, femoral venography) and device evaluation (eg, interrogation or programming), when performed

33275 Transcatheter removal of permanent leadless pacemaker, right ventricular, including imaging guidance (eg, fluoroscopy, venous ultrasound, ventriculography, femoral venography), when performed



Explanation

The physician performs transcatheter insertion, replacement, or removal of a ventricular permanent leadless pacemaker. This pacemaker is a single-chamber unit without leads that is placed into the right ventricle. The size varies based on manufacturer, but is approximately 7 mm x 26 mm and weighs 2 grams. The less invasive and shorter implantation procedure of a leadless pacemaker reduces recovery time and eliminates complications related to the transvenous leads and the subcutaneous pulse generator used in traditional pacemaker implantation, specifically infections. The battery typically lasts seven to 15 years, and the pacing, amplitude, and impedance are all relative to the traditional pacemaker. The femoral vein is entered and the device is fed into the right ventricle using a special catheter. Once attached, a continued connection allows for measurements to be taken and to determine positioning. All imaging and device evaluations are included in the procedures and should not be reported separately. For insertion or replacement of the pacemaker, report 33274; for removal of the pacemaker, report 33275.

Coding Tips

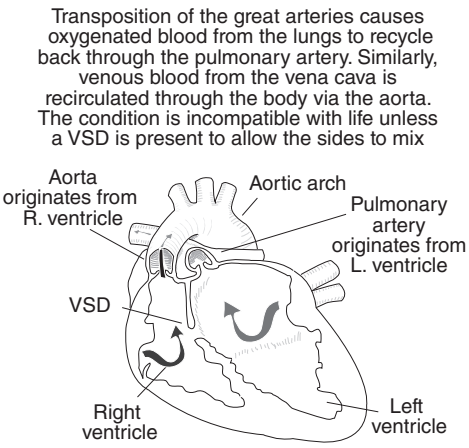
Do not report these codes with 75820, 76000, 77002, 76937, or 93566. Do not report 33275 with 33274. Do not report 33274 or 33275 with 93451, 93453, 93456, 93457, 93460, 93461, 93593, 93594, or 93596–93598 unless complete right heart catheterization is performed for reasons distinct from the leadless pacemaker procedure. For subsequent leadless pacemaker device evaluation, see 93279, 93286, 93288, 93294, 93296, 0804T, or 0826T. For insertion, replacement, repositioning, or removal of pacemakers with leads, see 33202-33208, 33212-33221, 33227-33229, and 33233-33237. Do not report 33274 or 33275 with 0795T–0803T or 0823T–0825T. For a dual-chamber leadless pacemaker, see 0795T–0803T. For insertion or replacement of a right ventricle leadless pacemaker as part of a complete dual-chamber leadless pacemaker, see 0797T; removal, see 0800T.

ICD-10-CM Diagnostic Codes

I44.0	Atrioventricular block, first degree
I44.1	Atrioventricular block, second degree
I44.2	Atrioventricular block, complete
I44.39	Other atrioventricular block
I44.4	Left anterior fascicular block
I44.5	Left posterior fascicular block
I44.69	Other fascicular block
I45.0	Right fascicular block
I45.19	Other right bundle-branch block
I45.2	Bifascicular block
I45.3	Trifascicular block
I45.4	Nonspecific intraventricular block
I45.5	Other specified heart block
I45.6	Pre-excitation syndrome
I45.81	Long QT syndrome
I47.11	Inappropriate sinus tachycardia, so stated
I47.19	Other supraventricular tachycardia
I48.0	Paroxysmal atrial fibrillation
I48.21	Permanent atrial fibrillation
I49.2	Junctional premature depolarization
I49.5	Sick sinus syndrome
I49.8	Other specified cardiac arrhythmias
I50.1	Left ventricular failure, unspecified
I50.21	Acute systolic (congestive) heart failure
I50.22	Chronic systolic (congestive) heart failure
I50.23	Acute on chronic systolic (congestive) heart failure
I50.31	Acute diastolic (congestive) heart failure
I50.32	Chronic diastolic (congestive) heart failure
I50.33	Acute on chronic diastolic (congestive) heart failure
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.810	Right heart failure, unspecified
I50.811	Acute right heart failure
I50.812	Chronic right heart failure
I50.813	Acute on chronic right heart failure
I50.814	Right heart failure due to left heart failure
I50.82	Biventricular heart failure
I50.83	High output heart failure
I50.84	End stage heart failure
I50.89	Other heart failure
I51.7	Cardiomegaly
Q24.6	Congenital heart block
T82.110A	Breakdown (mechanical) of cardiac electrode, initial encounter
T82.111A	Breakdown (mechanical) of cardiac pulse generator (battery), initial encounter
T82.120A	Displacement of cardiac electrode, initial encounter

33778-33781

33778 Repair of transposition of the great arteries, aortic pulmonary artery reconstruction (eg, Jatene type);
33779 with removal of pulmonary band
33780 with closure of ventricular septal defect
33781 with repair of subpulmonic obstruction



Explanation

The physician gains access to the mediastinum through an incision of the sternum (median sternotomy). Cardiopulmonary bypass catheters are placed through incisions in the low inferior vena cava, the superior vena cava, and aorta or femoral artery and the heart is stopped by infusion of cardioplegia solution into the coronary circulation. In 33778, the physician performs an arterial switch (or Jatene type procedure) for transposition of the great arteries, aortic pulmonary artery reconstruction. The physician removes the coronary ostia from the aortic root and sews them into the root of the pulmonary trunk. The pulmonary trunk and aortic root are each transected and interchanged to direct blood from the pulmonary veins through the left ventricle to the aorta, and the systemic venous drainage to the pulmonary trunk via the right ventricle. In 33779, the physician removes the pulmonary artery band placed during a previous surgery and dilates the pulmonary artery to normal size. If this is not possible, the pulmonary band and constricted area of pulmonary artery are removed and a woven Dacron patch is applied over the hole. The physician removes the coronary ostia from the aortic root and sews into the root of the pulmonary trunk. The pulmonary trunk and aortic root are each transected and interchanged to direct blood from the pulmonary veins through the left ventricle to the aorta, and the systemic venous drainage to the pulmonary trunk via the right ventricle. In 33780, the physician removes the coronary ostia from the aortic root and sews into the root of the pulmonary trunk. The pulmonary trunk and aortic root are each transected and interchanged to direct blood from the pulmonary veins through the left ventricle to the aorta, and the systemic venous drainage to the pulmonary trunk via the right ventricle. The ventricular septal defect is closed, usually with a Dacron patch. In 33781, the physician removes the coronary ostia from the aortic root and sews them into the root of the pulmonary trunk. The pulmonary trunk and aortic root are each transected and interchanged to direct blood from the pulmonary veins through the left ventricle to the aorta, and the systemic venous drainage to the pulmonary trunk via the right ventricle. An incision is made in the right ventricular outflow tract, resection of the fibrous muscular tissue causing the subpulmonic obstruction is performed, and the ventriculotomy is closed. Cardiac incisions are closed and patient is taken off cardiopulmonary bypass. The remaining surgical incisions are closed and the sternal or chest wall wounds are dressed. Chest tubes and/or mediastinal drainage tubes may be inserted following the procedure.

Coding Tips

When ligation and takedown of systemic-to-pulmonary artery shunt is performed in addition to this procedure, it should be reported separately, see 33924. Do not append modifier 63 to 33778 as the description or nature of the procedure includes infants up to 4 kg. For repair of transposition of the great arteries with ventricular septal defect and subpulmonary stenosis, see 33770–33771. For repair of transposition of the great arteries, atrial baffle procedure (e.g., Mustard or Senning type), see 33774; with removal of pulmonary artery band, see 33775; with closure of ventricular septal defect, see 33776; and with repair of subpulmonic obstruction, see 33777.

ICD-10-CM Diagnostic Codes

I37.0 Nonrheumatic pulmonary valve stenosis
I37.1 Nonrheumatic pulmonary valve insufficiency
I37.2 Nonrheumatic pulmonary valve stenosis with insufficiency
I37.8 Other nonrheumatic pulmonary valve disorders
Q20.1 Double outlet right ventricle
Q20.2 Double outlet left ventricle
Q20.3 Discordant ventriculoarterial connection
Q20.4 Double inlet ventricle
Q20.5 Discordant atrioventricular connection
Q20.8 Other congenital malformations of cardiac chambers and connections
Q21.0 Ventricular septal defect
Q21.4 Aortopulmonary septal defect
Q21.8 Other congenital malformations of cardiac septa
Q22.0 Pulmonary valve atresia
Q22.1 Congenital pulmonary valve stenosis
Q22.2 Congenital pulmonary valve insufficiency
Q22.3 Other congenital malformations of pulmonary valve
Q22.4 Congenital tricuspid stenosis
Q22.5 Ebstein's anomaly
Q22.6 Hypoplastic right heart syndrome
Q22.8 Other congenital malformations of tricuspid valve
Q24.8 Other specified congenital malformations of heart
Q25.41 Absence and aplasia of aorta
Q25.42 Hypoplasia of aorta
Q25.43 Congenital aneurysm of aorta
Q25.44 Congenital dilation of aorta
Q25.45 Double aortic arch
Q25.46 Tortuous aortic arch
Q25.47 Right aortic arch
Q25.48 Anomalous origin of subclavian artery
Q25.49 Other congenital malformations of aorta
Q25.72 Congenital pulmonary arteriovenous malformation
Q25.79 Other congenital malformations of pulmonary artery
Q25.8 Other congenital malformations of other great arteries
R23.0 Cyanosis

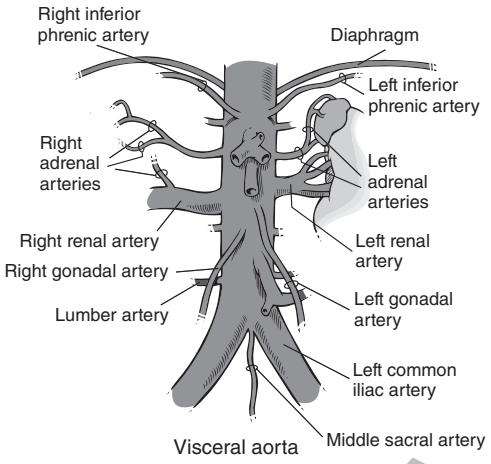
34841-34844

34841 Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including one visceral artery endoprosthesis (superior mesenteric, celiac or renal artery)

34842 including two visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])

34843 including three visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])

34844 including four or more visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])



Explanation

Endovascular repair of an abdominal aortic aneurysm, pseudoaneurysm, or dissection, using a prosthesis, and involving visceral branches (superior mesenteric, celiac, and/or renal artery) requires the skills of a vascular surgeon and a radiologist. A small incision is made in the groin over both femoral arteries. Under fluoroscopic guidance, the physician inserts an aortic component through one femoral artery. These are contained inside a plastic holding capsule that is threaded through the arteries to the site of the aneurysm. The physician places the necessary extension prostheses and cuts fenestrations (holes) at each visceral artery orifice to allow side branch perfusion of these vessels. Next, catheters are used to place overlapping stents at each fenestration and vessel orifice to secure the junction. Once the graft components and stents are in place, the holding capsule and catheters are removed and the arteriotomy site is closed. Report 34841 when one visceral artery is included, 34842 for two, 34843 for three, and 34844 for four or more arteries.

Coding Tips

Do not report introduction of catheters and guidewires into the aorta and visceral and/or renal arteries separately in addition to these procedures. Balloon angioplasty within the target zone of the endograft is also not reported separately, whether prior to or after graft deployment. Fluoroscopic guidance is included in these procedures and not reported separately. Catheterization of the hypogastric arteries, arterial families outside of the treatment zone of the graft, exposure of the access vessels, extensive repair of the access vessels, and other separate interventional procedures outside of the target treatment zone performed at the time of this service may be reported separately. For endovascular treatment of the descending thoracic aorta, see 33880–33886 and 75956–75959. For endovascular infrarenal abdominal aortic aneurysm repair without the use of a graft, see 34701–34706. Do not report these codes with 34701–34706 or 34845–34848. Do not report these codes in addition to 34839 when planning is performed the day before or the day of the fenestrated repair. These codes should not be reported with 37236 or 37237 when covered or bare metal stents are placed into the visceral branches of the endoprosthesis target zone.

ICD-10-CM Diagnostic Codes

A52.01 Syphilitic aneurysm of aorta
I71.02 Dissection of abdominal aorta
I71.03 Dissection of thoracoabdominal aorta
I71.31 Pararenal abdominal aortic aneurysm, ruptured
I71.32 Juxtarenal abdominal aortic aneurysm, ruptured
I71.51 Supraceliac aneurysm of the thoracoabdominal aorta, ruptured
I71.52 Paravisceral aneurysm of the thoracoabdominal aorta, ruptured
I71.61 Supraceliac aneurysm of the thoracoabdominal aorta, without rupture
I71.62 Paravisceral aneurysm of the thoracoabdominal aorta, without rupture
Q25.43 Congenital aneurysm of aorta
Q25.44 Congenital dilation of aorta
Q25.49 Other congenital malformations of aorta
S35.01XA Minor laceration of abdominal aorta, initial encounter
S35.02XA Major laceration of abdominal aorta, initial encounter
S35.09XA Other injury of abdominal aorta, initial encounter
T82.818A Embolism due to vascular prosthetic devices, implants and grafts, initial encounter
T82.858A Stenosis of other vascular prosthetic devices, implants and grafts, initial encounter
T82.868A Thrombosis due to vascular prosthetic devices, implants and grafts, initial encounter

Relative Value Units/Medicare Edits

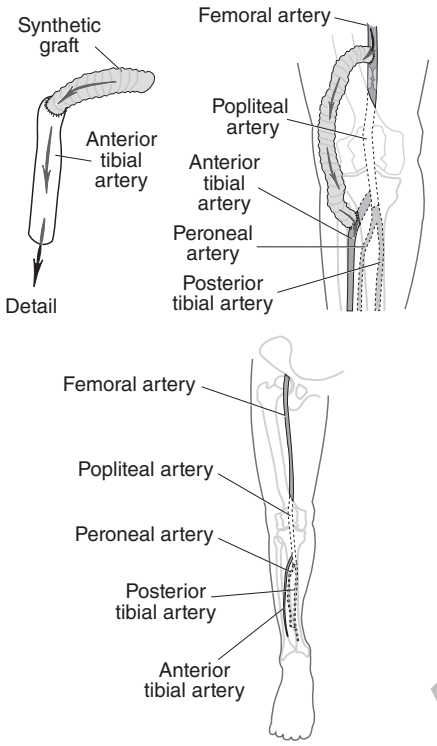
Non-Facility RVU	Work	PE	MP	Total
34841	0.0	0.0	0.0	0.0
34842	0.0	0.0	0.0	0.0
34843	0.0	0.0	0.0	0.0
34844	0.0	0.0	0.0	0.0
Facility RVU	**Work**	**PE**	**MP**	**Total**
34841	0.0	0.0	0.0	0.0
34842	0.0	0.0	0.0	0.0
34843	0.0	0.0	0.0	0.0
34844	0.0	0.0	0.0	0.0

	FUD	Status	MUE	Modifiers				IOM Reference
34841	N/A	C	1(2)	51	N/A	62	80	None
34842	N/A	C	1(2)	51	N/A	62	80	
34843	N/A	C	1(2)	51	N/A	62	80	
34844	N/A	C	1(2)	51	N/A	62	80	

* with documentation

35666

35666 Bypass graft, with other than vein; femoral-anterior tibial, posterior tibial, or peroneal artery



Explanation

Through incisions in the skin of the leg overlying the superficial femoral artery, the physician isolates and dissects sections of the femoral and anterior tibial, posterior tibial or peroneal arteries. The physician creates a bypass around the affected artery using a synthetic vein. Once vessel clamps have been affixed above and below the defect, the superficial femoral artery may be cut through above the damaged area and sutured to one end of a synthetic vein, which is passed through an intramuscular tunnel and sutured to the anterior tibial, posterior tibial, peroneal, or other distal vessel. In the second method, the ends of the synthetic vein are sutured to the side of the femoral artery and anterior tibial, posterior tibial, peroneal, or other distal vessel wall, resulting in a bypass of the damaged area. When the clamps are removed, the section of synthetic vein forms a new path through which blood can easily bypass the blocked area. The blocked or damaged portion of artery is left in place and not removed. After the graft is complete, the skin incisions are repaired with layered closures.

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. Report 35700 in addition to 35666 for reoperation more than one month after the original operation. If a bypass graft is performed with a harvested vein, see 35566. If an in-situ vein bypass is performed, see 35585.

ICD-10-CM Diagnostic Codes

I70.211 Atherosclerosis of native arteries of extremities with intermittent claudication, right leg A ☑

I70.221 Atherosclerosis of native arteries of extremities with rest pain, right leg A ☑

I70.231 Atherosclerosis of native arteries of right leg with ulceration of thigh A ☑

I70.232 Atherosclerosis of native arteries of right leg with ulceration of calf A ☑

I70.233 Atherosclerosis of native arteries of right leg with ulceration of ankle A ☑

I70.234 Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot A ☑

I70.235 Atherosclerosis of native arteries of right leg with ulceration of other part of foot A ☑

I70.238 Atherosclerosis of native arteries of right leg with ulceration of other part of lower leg A ☑

I70.261 Atherosclerosis of native arteries of extremities with gangrene, right leg A ☑

I70.461 Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, right leg A ☑

I70.511 Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, right leg A ☑

I70.521 Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, right leg A ☑

I70.531 Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of thigh A ☑

I70.561 Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, right leg A ☑

I70.611 Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, right leg A ☑

I70.621 Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, right leg A ☑

I70.631 Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of thigh A ☑

I70.661 Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, right leg A ☑

I70.92 Chronic total occlusion of artery of the extremities A

I72.4 Aneurysm of artery of lower extremity

I74.3 Embolism and thrombosis of arteries of the lower extremities

I75.021 Atheroembolism of right lower extremity ☑

I76 Septic arterial embolism

I77.1 Stricture of artery

I77.2 Rupture of artery

I77.5 Necrosis of artery

S75.021A Major laceration of femoral artery, right leg, initial encounter ☑

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
35666	23.66	8.17	5.88	37.71
Facility RVU	**Work**	**PE**	**MP**	**Total**
35666	23.66	8.17	5.88	37.71

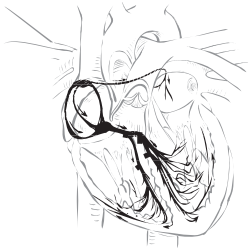
	FUD	Status	MUE	Modifiers				IOM Reference
35666	90	A	2(3)	51	50	62*	80	None

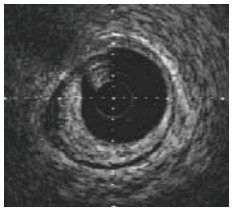
* with documentation

[92978, 92979]

\+ **92978** Endoluminal imaging of coronary vessel or graft using intravascular ultrasound (IVUS) or optical coherence tomography (OCT) during diagnostic evaluation and/or therapeutic intervention including imaging supervision, interpretation and report; initial vessel (List separately in addition to code for primary procedure)

\+ **92979** Endoluminal imaging of coronary vessel or graft using intravascular ultrasound (IVUS) or optical coherence tomography (OCT) during diagnostic evaluation and/or therapeutic intervention including imaging supervision, interpretation and report; each additional vessel (List separately in addition to code for primary procedure)





An intravascular ultrasound is used during a diagnostic study of a coronary vessel or coronary artery graft

Explanation

Intravascular ultrasound (IVUS) or optical coherence tomography (OCT) may be used for endoluminal imaging during diagnostic evaluation of a coronary vessel or graft. It may also be used before and after a therapeutic intervention on a coronary vessel or graft to assess patency and integrity of the vessel or graft. A needle is inserted through the skin and into a blood vessel. A guidewire is threaded through the needle into a coronary blood vessel or graft. The needle is removed. An intravascular ultrasound catheter is placed over the guidewire. The ultrasound probe is used to obtain images from inside the vessel to assess area and extent of disease prior to interventional therapy, as well as adequacy of therapy after interventional therapy. The ultrasound probe provides a two-dimensional, cross-sectional view of the vessel or graft as the probe is advanced and withdrawn along the area of interest. When the ultrasound examination is complete, the catheter is removed. OCT utilizes light instead of sound to provide cross-sectional images in high resolution within the lumen. Report 92978 for the initial vessel or graft. In 92979, the physician advances the ultrasound catheter into additional vessels or grafts to assess patency and structure. The catheter and guidewire are removed and pressure is applied over the puncture site to stop 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. Report 92978 in addition to 92920, 92924, 92928, 92933, 92937, 92941, 92943, 92975, 93454–93461, 93563, and 93564.

Use 92979 in addition to 92978. Transducer manipulation and repositioning within the specific vessel being examined both before and after therapeutic intervention is considered integral to the intravascular ultrasound service and should not be reported separately. Report 92978 once per encounter and 92979 once per additional vessel. Do not report 92978 with 0913T or 0914T for intervention in the same major coronary artery or the same bypass graft.

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. Diagnostic code(s) would be the same as the actual procedure performed.

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
92978	0.0	0.0	0.0	0.0
92979	0.0	0.0	0.0	0.0
Facility RVU	**Work**	**PE**	**MP**	**Total**
92978	0.0	0.0	0.0	0.0
92979	0.0	0.0	0.0	0.0

	FUD	Status	MUE	Modifiers				IOM Reference
92978	N/A	C	1(3)	N/A	N/A	N/A	80*	None
92979	N/A	C	2(3)	N/A	N/A	N/A	80*	

* with documentation

Terms To Know

diagnostic procedures. Procedure performed on a patient to obtain information to assess the medical condition of the patient or to identify a disease and to determine the nature and severity of an illness or injury.

intravascular. Within a blood vessel.

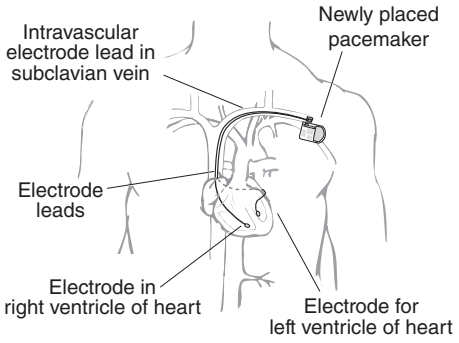
therapeutic procedure. Manner of effecting change through the application of clinical skills and/or services that attempt to improve function.

ultrasound. Imaging using ultra-high sound frequency bounced off body structures.

93640-93641

93640 Electrophysiologic evaluation of single or dual chamber pacing cardioverter-defibrillator leads including defibrillation threshold evaluation (induction of arrhythmia, evaluation of sensing and pacing for arrhythmia termination) at time of initial implantation or replacement;

93641 with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator



Testing is performed on cardioverter-defibrillator leads and pulse generator to ensure that they are functioning properly

Explanation

The purpose of this study is to ensure that the cardioverter-defibrillator (ICD) leads are positioned well and working properly, to guarantee proper function of this device in the future. Leads are typically placed in the heart via the subclavian vein, but occasionally defibrillation patches are placed on the epicardium or under the skin. To test the leads, the physician records cardiac electrical signals and paces the heart through the leads. The physician may test the leads using the actual ICD or by hooking the leads to an external device. The physician uses the leads to pace the heart into an arrhythmia, such as ventricular tachycardia or fibrillation. The ICD or external device detects the arrhythmia and shocks the heart through the ICD leads. The physician may perform this test with several different levels of shock to ensure that the ICD can reliably terminate the arrhythmia. In 93640, only the leads are tested. In 93641, both the leads and the cardioverter-defibrillator pulse generator are tested.

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. Codes 93640 and 93641 are reported in addition to the insertion codes at the time of implantation or replacement of the single or dual chamber pacing cardioverter-defibrillator electrode leads (93640) or pulse generator (93641). Induction of arrhythmia is included in 93640 and 93641. Do not report 93618 separately. Procedures 93640 and 93641 have both a technical and professional component. To report only the professional component, append modifier 26. To report only the technical component, append modifier TC. To report the complete procedure (i.e., both the professional and technical components), submit without a modifier. For subsequent or periodic electronic analysis and/or reprogramming of single or dual chamber pacing cardioverter-defibrillators, see 93282, 93283, 93289, 93292, 93295, and 93642.

ICD-10-CM Diagnostic Codes

I45.89 Other specified conduction disorders
I47.0 Re-entry ventricular arrhythmia
I47.11 Inappropriate sinus tachycardia, so stated
I47.21 Torsades de pointes
I47.29 Other ventricular tachycardia
I48.0 Paroxysmal atrial fibrillation
I48.11 Longstanding persistent atrial fibrillation
I48.19 Other persistent atrial fibrillation
I48.21 Permanent atrial fibrillation
I48.3 Typical atrial flutter
I48.4 Atypical atrial flutter
I49.01 Ventricular fibrillation
I49.02 Ventricular flutter
I49.1 Atrial premature depolarization
I49.2 Junctional premature depolarization
I49.3 Ventricular premature depolarization
I49.49 Other premature depolarization
I49.5 Sick sinus syndrome
I49.8 Other specified cardiac arrhythmias
T82.817A Embolism due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.827A Fibrosis due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.837A Hemorrhage due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.847A Pain due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.857A Stenosis of other cardiac prosthetic devices, implants and grafts, initial encounter
T82.867A Thrombosis due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.897A Other specified complication of cardiac prosthetic devices, implants and grafts, initial encounter
Z45.02 Encounter for adjustment and management of automatic implantable cardiac defibrillator
Z95.810 Presence of automatic (implantable) cardiac defibrillator

Relative Value Units/Medicare Edits

Non-Facility RVU	Work	PE	MP	Total
93640	0.0	0.0	0.0	0.0
93641	0.0	0.0	0.0	0.0
Facility RVU	**Work**	**PE**	**MP**	**Total**
93640	0.0	0.0	0.0	0.0
93641	0.0	0.0	0.0	0.0

	FUD	Status	MUE	Modifiers				IOM Reference
93640	0	C	1(3)	51	N/A	N/A	80*	None
93641	0	C	1(2)	51	N/A	N/A	80*	

* with documentation

Correct Coding Initiative Update 32.3

❖Indicates Mutually Exclusive Edit

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