AngioVac

The AngioVac Cannula and Circuit

2022 Reimbursement Coding Reference Information

angiodynamics

AngioDynamics' AngioVac System includes the venous drainage cannula and the cardiopulmonary circuit.

- **The cannula is indicated for use as a venous drainage cannula and for removal of fresh, soft thrombi or emboli during extracorporeal bypass for up to six hours.**
- **The cardiopulmonary circuit is indicated for use in procedures requiring extracorporeal circulatory support for periods of up to six hours.**

For assistance with billing for physician procedures using AngioVac System, contact the AngioVac System Reimbursement Hotline at (866) 369-9290 or email angiovacreimbursement@angiodynamics.com

The information in the following pages is general reimbursement information only and is intended to assist in the compliance of complex and changing reimbursement policies. It is not legal advice, nor is it advice about how to code, complete, or submit any particular claim for payment. It is not intended to increase or maximize reimbursement by any third-party payor. This information has been gathered from third-party sources and was correct at the time of publication. It is subject to change without notice. It is the provider's responsibility to exercise independent clinical judgment to determine appropriate coding and charges that accurately reflect all the patient's conditions and services provided. These conditions and services must be recorded in the patient's medical records. All devices should be used consistently with FDA approvals or clearances. The information provided here is intended for informational purposes only and represents no statement, promise or guarantee by AngioDynamics concerning levels of reimbursement, payment, or charges. Payors may have different coding and reimbursement requirements. Providers should contact the payor to confirm current requirements and policies when needed. All decisions related to reimbursement, including amounts to bill, are exclusively that of the provider. The following tables provide only examples of hospital MS-DRGs and payment levels. They are not an all-inclusive list of MS-DRGs and payment levels, which may apply to procedures using the AngioVac System.

CPT® Codes

CPT®[1]	CPT® Long Code Descriptor[1]
0644T	Transcatheter removal or debulking of intracardiac mass (eg, vegetations, thrombus) via suction (eg, vacuum, aspiration) device, percutaneous approach, with intraoperative reinfusion of aspirated blood, including imaging guidance, when performed*
37799	Unlisted Procedure, vascular surgery

* The insertion and removal of … venous cannula(e) (eg, 33951, 33952, 33953, 33954, 33955, 33956, 33965, 33966, 33969, 33984, 33985, 33986) and initiation (eg, 33946, 33947) of the extracorporeal circuit (… venovenous) for intraoperative reinfusion of aspirated blood is included in the procedure. Other interventional procedures performed at the time of percutaneous intracardiac mass removal may be reported separately (eg, removal of infected pacemaker leads, removal of tunneled catheters, placement of dialysis catheters, valve repair or replacement). If prolonged extracorporeal membrane oxygenation (ECMO) or extracorporeal life support (ECLS) is required at the conclusion of the procedure, then the appropriate ECMO cannula(e) insertion (eg, 33951, 33952, 33953, 33954, 33955, 33956), removal (33965, 33966, 33969, 33984, 33985, 33986), and initiation (eg, 33946, 33947) codes may be reported in addition to 0644T. The American Medical Association's CPT® Category III webpage provides full coding guidelines for CPT® 0644T.

Using Category III CPT® Codes

Coding for physician procedures varies widely, and must accurately reflect the services provided, especially if a combination of procedures is needed to treat a patient's specific needs. Category III codes are for emerging technologies, services, and procedures. They enable physicians and outpatient facilities to report accurately and gather data on the clinical efficacy, utilization, and outcomes of emerging technologies. According to the AMA CPT® , a Category III code must be used in place of an unlisted procedure code.

Importantly, the approval of this new Category III 0644T codes does not guarantee coverage by third party health payors or set a national or local payment level for physician services.

In fact, payors may not immediately update their claims processing systems to include new Category III codes. Payors that have implemented the new Category III code 0644T may request documentation of clinical efficacy to support coverage. AngioDynamics can assist physicians with scientific literature and information to facilitate knowledgeable payor decision-making. Reporting Category III codes can also initiate a dialogue between the payor and the physician on the payment level.

Third party health payors use different payment methodologies for Category III codes. Private payors that accept and cover Category III CPT® codes can pay based on physician charges, a percentage of those charges, or if available, Medicare fee schedule amounts, as examples. Medicare/CMS does not set national physician payment levels for Category III CPT® codes, so these codes are "carrier/contractor-priced". Check with the payor to see if they have guidelines for pricing Category III codes and if so, follow those guidelines. Physicians should be prepared to submit information to the payor that helps coverage and payment decisions. For example, Noridian, a Medicare contractor, requests information that includes estimates of physician and clinical staff time and intensity of physician work. For surgical procedures, Noridian asks for documentation of skin-to-skin (intra-service) surgical times. An evidence-based dialogue with the payor contributes to accurate and equitable payment levels. Payors may describe these payment methods as crosswalking or negotiated rate setting.

Crosswalk payment from a similar procedure to the Category III code: The physician may want to offer a crosswalk analysis in communicating with a payor about a new code. The crosswalk first identifies a reference procedure with an established payment level. Next, the physician suggests that payment for the new Category III CPT® 0644T code should be at the same rate as the reference procedure rate because both procedures require similar physician time, effort, and complexity. The payor may accept the "comparability" of the procedures and crosswalk payment from the reference procedure to the new Category III CPT® 0644T.

Medicare has used the crosswalk process in various settings. While the Medicare physician fee schedule establishes payment based on the relative values of physician work, practice expenses, and malpractice, these metrics may be part of a local contractor Category III CPT® code payment crosswalk. Physician work value typically focuses on: time (pre-, intra, and post-operative time in the hospital), mental effort, professional judgment, technical skill, physical effort, stress due to risk, and number and complexity of follow up visits.

Value-based Negotiated rates: Physicians may also consider a negotiated rate approach. This uses similar information from a crosswalk but with broader clinical and payment considerations, such as Unique clinical value, Improved net health outcomes, Comparison of clinical impact to other treatments, Resource comparisons, including the relative complexity of the procedure to alternative treatment of the same condition (see discussion above on crosswalk), time and professional skill to perform the procedure including pre-, intra-, and post-operative time, and role of the physician in the hospital as a center of excellence.

Value based payment can be a component of negotiated rates where the new procedure offers the payor's subscribers a clinical breakthrough in treatment of a diagnosis. Since the Category III 0644T encompasses the imaging guidance services, physician time and effort associated with imaging guidance should be part of the negotiated rate. Documents that payors can request include the surgical/operative note, patient history, and letter of medical necessity. It is important to inquire if the payor has guidelines on negotiated rate setting for physician services and if so, to follow those guidelines.

HCPCS Code

Healthcare Common Procedure Coding System (HCPCS) codes were developed to help categorize, document, and track the use of products, supplies, and services. While HCPCS codes do not generally result in additional payment, the use of these codes helps CMS collect data generated from the codes and associated charges which can influence future payment rates.

HCPCS[2]	Code Description[2]	AngioVac Product/Item Number
C1757	Catheter, thrombectomy/embolectomy	Cannula with Dilator (20°)/ H965251930
		Cannula with Dilator (180°)/ H965251940
		Cannula with Dilator (20°), Circuit and Bubble Traps (2)/ H965251950
		Cannula with Dilator (180°), Circuit and Bubble Traps (2)/ H965251960

ICD-10-PCS Hospital Procedure Code(s)

Hospitals should ensure their coding is based on the most recent and up-to-date ICD-10-PCS codes. There are several sections of the ICD-10-PCS system which may be available to describe procedures associated with the AngioVac System. The listed ICD-10-PCS procedure codes are examples of codes that may apply to venous extirpation procedures. Each ICD-10-PCS may be grouped under a Medicare Severity-Diagnosis Related Group (MS-DRGs). If significant additional procedures are performed during the same inpatient admission, other MS-DRGs may apply.

ICD-10-PCS Codes[3,4] and MS-DRG Groups[5]			
ICD-10-PCS[3,4]	ICD-10-PCS Descriptor[4]	MS-DRG Numbers[5]	MS-DRG Category Descriptor[5]
06C03ZZ	Extirpation of Matter from Inferior Vena Cava, Percutaneous Approach	270,271,272	OTHER MAJOR CARDIOVASCULAR PROCEDURES
02CV3ZZ	Extirpation of Matter from Superior Vena Cava, Percutaneous Approach	163,164,165	MAJOR CHEST PROCEDURES
		270,271,272	OTHER MAJOR CARDIOVASCULAR PROCEDURES
		907,908,909	OTHER O.R. PROCEDURES FOR INJURIES
		957,958,959	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA

ICD-10-PCS Codes[3,4] and MS-DRG Groups[5]			
ICD-10-PCS[3,4]	**ICD-10-PCS Descriptor[4]**	**MS-DRG Numbers[5]**	**MS-DRG Category Descriptor[5]**
02CJ3ZZ	Extirpation of Matter from Tricuspid Valve, Percutaneous Approach	270,271,272	OTHER MAJOR CARDIOVASCULAR PROCEDURES
02C63ZZ	Extirpation of Matter from Right Atrium, Percutaneous Approach	228,229	OTHER CARDIOTHORACIC PROCEDURES
02CK3ZZ	Extirpation of Matter from Right Ventricle, Percutaneous Approach	228,229	OTHER CARDIOTHORACIC PROCEDURES
06C93ZZ	Extirpation of Matter from Right Renal Vein, Percutaneous Approach	270,271,272	OTHER MAJOR CARDIOVASCULAR PROCEDURES
		673,674,675	OTHER KIDNEY & URINARY TRACT PROCEDURE
06CB3ZZ	Extirpation of Matter from Left Renal Vein, Percutaneous Approach	270,271,272	OTHER MAJOR CARDIOVASCULAR PROCEDURES
		673,674,675	OTHER KIDNEY & URINARY TRACT PROCEDURE
06CC3ZZ	Extirpation of Matter from Right Common Iliac Vein, Percutaneous Approach	270,271,272	OTHER MAJOR CARDIOVASCULAR PROCEDURES
06CD3ZZ	Extirpation of Matter from Left Common Iliac Vein, Percutaneous Approach	270,271,272	OTHER MAJOR CARDIOVASCULAR PROCEDURES
Cardiopulmonary Bypass (CPB) support			
5A1221Z	Performance of Cardiac Output, Continuous		

Medicare Severity Diagnoses Related Groups (October 2021 – September 2022)

The following MS-DRGs may apply to percutaneous peripheral vascular interventions for Medicare patients depending on the ICD-10-PCS code used. ICD-10-PCS codes can group into different MS-DRGs depending upon all procedures performed and the patient's diagnoses. This chart presents examples of MS-DRGs and associated payment amounts for Medicare patients in 2022 (effective October 1, 2021). Payment amounts are based on a National Operating and Capital amount for 2022= $6,594.31[7].

Examples of Diagnosis Related Group (MS-DRG) Codes & Base Rates			
MS-DRG Number[5]	**MS-DRG Descriptor[5]**	**Weight[6]**	**Payment[6]**
163	MAJOR CHEST PROCEDURES WITH MCC	5.0068	$33,016.39
164	MAJOR CHEST PROCEDURES WITH CC	2.6556	$17,511.85
165	MAJOR CHEST PROCEDURES WITHOUT CC/MCC	1.9166	$12,638.65
228	OTHER CARDIOTHORACIC PROCEDURES W MCC	5.3303	$35,149.65
229	OTHER CARDIOTHORACIC PROCEDURES W/O MCC	3.4412	$22,692.34

Examples of Diagnosis Related Group (MS-DRG) Codes & Base Rates			
MS-DRG Number[5]	MS-DRG Descriptor[5]	Weight[6]	Payment[6]
270	OTHER MAJOR CARDIOVASCULAR PROCEDURES WITH MCC	5.1870	$34,204.69
271	OTHER MAJOR CARDIOVASCULAR PROCEDURES WITH CC	3.5654	$23,511.35
272	OTHER MAJOR CARDIOVASCULAR PROCEDURES WITHOUT CC/MCC	2.6883	$17,727.48
673	OTHER KIDNEY & URINARY TRACT PROCEDURES W MCC	3.4683	$22,871.05
674	OTHER KIDNEY & URINARY TRACT PROCEDURES W CC	2.3832	$15,715.56
675	OTHER KIDNEY & URINARY TRACT PROCEDURES W/O CC/MCC	1.7547	$11,571.04
907	OTHER O.R. PROCEDURES FOR INJURIES WITH MCC	3.9482	$26,035.65
908	OTHER O.R. PROCEDURES FOR INJURIES WITH CC	2.0504	$13,520.97
909	OTHER O.R. PROCEDURES FOR INJURIES WITHOUT CC/MCC	1.3710	$9,040.80
957	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA W MCC	7.4209	$48,935.72
958	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA W CC	4.2057	$27,733.69
959	OTHER O.R. PROCEDURES FOR MULTIPLE SIGNIFICANT TRAUMA W/O CC/MCC	2.7361	$18,042.69

ICD-10-CM Diagnosis Code(s)

Diagnosis codes should accurately reflect the patient's medical condition, should be reported in the patient's medical records, and should be consistent with payor requirements.

General Classes of ICD-10-CM Diagnosis Codes[7]	
I82.	Other venous embolism and thrombosis
I33.	Acute and subacute endocarditis
Examples of ICD-10-CM Diagnosis Code(s)[7]	
Code	Code Description
I82.220	Acute embolism and thrombosis of inferior vena cava
I82.210	Acute embolism and thrombosis of superior vena cava
I82.290	Acute embolism and thrombosis of other thoracic veins
I82.441	Acute embolism and thrombosis of right tibial vein
I82.442	Acute embolism and thrombosis of left tibial vein
I82.443	Acute embolism and thrombosis of tibial vein, bilateral
I82.449	Acute embolism and thrombosis of unspecified tibial vein
I82.491	Acute embolism and thrombosis of other specified deep vein of right lower extremity
I82.492	Acute embolism and thrombosis of other specified deep vein of left lower extremity
I82.493	Acute embolism and thrombosis of other specified deep vein of lower extremity, bilateral
I82.499	Acute embolism and thrombosis of other specified deep vein of unspecified lower extremity
I82.4Z1	Acute embolism and thrombosis of unspecified deep veins of right distal lower extremity
I82.4Z2	Acute embolism and thrombosis of unspecified deep veins of left distal lower extremity
I82.4Z3	Acute embolism and thrombosis of unspecified deep veins of distal lower extremity, bilateral
I82.4Z9	Acute embolism and thrombosis of unspecified deep veins of unspecified distal lower extremity
I82.890	Acute embolism and thrombosis of other specified veins
I82.90	Acute embolism and thrombosis of unspecified vein
I33.0	Acute and subacute infective endocarditis
I33.9	Acute and subacute endocarditis, unspecified

References

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2. AAPC. 2021 HCPCS Level II Expert: Service Supply Codes for Caregivers and Suppliers. American Academy of Professional Coders; 2020.
3. In 2015, the ICD-10-PCS Committee noted that hospitals could report extracorporeal bypass procedures using code 5A1221Z Performance of Cardiac Output, Continuous and assign codes from tables 02C, 05C, and 06C for the removal of the thrombus. [Agenda Item # 7, Removal of Thrombus and Emboli. www.cms.gov/Medicare/Coding/ICD9ProviderDiagnosticCodes/Downloads/2015-03-18-Agenda.pdf (p. 30-34)].
4. CMS, 2022 ICD-10 Procedure Coding System (ICD-10-PCS). https://www.cms.gov/medicare/icd-10/2022-icd-10-pcs. Accessed August 23, 2021.
5. AAPC Codify, Cross-Reference "ICD-10-PCS - MS-DRG" Accessed August 23, 2021.
6. CMS, [CMS-1752-F] 2022 Medicare Hospital Inpatient Prospective Payment System (IPPS) Final Rule; Federal Register, Vol. 85, FR 58432. Accessed August 23, 2021. https://www.cms.gov/medicare/acute-inpatient-pps/fy-2022-ipps-final-rule-home-page. Payment is calculated based on the national adjusted standardized amount $6,594.31). Actual Medicare payment rates will vary from adjustments by Wage Index and Geographic Adjustment Factor depending on geographic locality. Also note that any applicable coinsurance, deductible, and other amounts that are patient obligations are included in the payment amount shown.
7. Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS). 2022 release of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) . Updated June 30, 2021. Accessed August 23, 2021. https://www.cdc.gov/nchs/icd/icd10cm.htm#FY%202020%20release%20of%20ICD-10-CM

Frequently Asked Questions

Q. Is the AngioVac Cannula and Circuit FDA cleared?

A. Yes, FDA clearance was granted for the AngioVac Cannula on November 12, 2014 and July 05, 2019. The AngioVac Circuit was granted FDA clearance on December 11, 2014.

- AngioVac Cannula (C20 and C180): https://www.accessdata.fda.gov/cdrh_docs/pdf19/K190594.pdf
- AngioVac Cannula: https://www.accessdata.fda.gov/cdrh_docs/pdf14/K142593.pdf
- AngioVac Circuit: https://www.accessdata.fda.gov/cdrh_docs/pdf14/K142607.pdf

Q. What is the AngioVac System's intended use?

A. The AngioVac Cannula is indicated for use as a venous drainage cannula and for removal of fresh, soft thrombi or emboli during extracorporeal bypass for up to six hours.

The AngioVac Circuit is indicated for use in procedures requiring extracorporeal circulatory support for periods of up to six hours.

Q. What is the procedure code when the AngioVac System is used for removal of thrombi or emboli?

A. There is a new Category III CPT® code (0644T) that describes removal of cardiac thrombi, vegetations or emboli with reinfusion of aspirated blood via venovenous extracorporeal circuit. For all other uses, an unlisted vascular surgery CPT® code (37799) or a combination of codes may be available for physicians. For ICD-10-PCS hospital procedure codes, the ICD-10 Coordination and Maintenance Committee indicated in their March 2015 meeting, the root operation, extirpation, should be used as described on page 5.

Q. What kind of documentation is needed when billing with an unlisted CPT® code or a Category III CPT® code?

A. Typically, the documentation requested by the payor and submitted by the provider is a detailed description of the patient's diagnosis, procedures performed, and treatment, including medical explanations as documented in the medical record. This is sometimes called a Special Report or Operative Note. The more detailed, the easier it is for someone determining payment and/or auditing the claim to have a good understanding of the services provided.

Q. How should hospitals code when the AngioVac System is used?

A. Coding for use of the AngioVac System will depend on how it is used, described in the documentation, and consistent with payor requirements.

Q. Does the AngioVac Cannula and/or Circuit have HCPCS codes (C-codes)?

A. Yes, the C-code most appropriate for AngioVac Cannula/Catheter is C1757 (Catheter, thrombectomy/embolectomy). There is not a C-code appropriate for the AngioVac Circuit at this time. C-codes are used almost exclusively by Medicare to report hospital outpatient procedures or devices used in the hospital outpatient setting. The AngioVac System is intended for use in the inpatient setting.

Q. What if I need additional assistance? Who should I contact?

A. If you have questions or require additional resources, contact the AngioVac System Reimbursement Hotline at (866) 369-9290 or email angiovacreimbursement@angiodynamics.com

RISK INFORMATION
AngioVac Cannula:
Indication for Use: The AngioVac Cannula is indicated for use as a venous drainage cannula and for removal of fresh, soft thrombi or emboli during extracorporeal bypass for up to 6 hours.
Contraindications: The Following contraindications are applicable:

- Do not use if the patient has severe arterial or venous vascular disease.
- The device is contraindicated in the removal of chronic firmly adherent intravascular material (e.g., atherosclerotic plaque, chronic pulmonary embolism).
- The device is contraindicated for use in the right heart or pulmonary arteries during active cardiopulmonary resuscitation.

AngioVac Circuit:
Indication for Use: The AngioVac Circuit is indicated for use in procedures requiring extracorporeal circulatory support for periods of up to six hours.
Contraindications: Refer to the AngioVac Cannula Directions for Use (DFU) for procedure-specific contraindications.
Refer to Directions for Use and/or User Manual provided with the product for complete Instructions, Warnings, Precautions, Possible Adverse Effects and Contraindications prior to use of the product.
CAUTION: Federal law (USA) restricts this device to sale by or on the order of a physician.

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