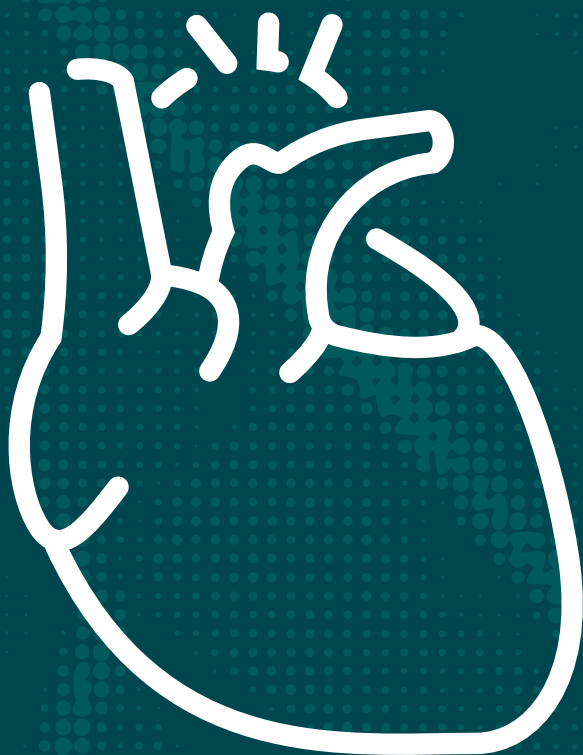# AAPC

Your essential illustrated coding guide for cardiology & cardiothoracic surgery, including CPT®, HCPCS Level II, tips, CPT® to ICD-10-CM Cross References, NCCI edits, and RVU information

CODERS' SPECIALTY GUIDE

Cardiology & Cardiothoracic Surgery

2026

Contents

Cardiovascular System

33016

Pericardiocentesis, including imaging guidance, when performed

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider selects a site typically between the xiphoid process and the left sternocostal margin. The provider may create a small incision to reduce needle resistance and then advances a needle attached to a syringe or suction device into the pericardial space. The provider often uses fluoroscopic or ultrasound imaging guidance to ensure accuracy of the needle placement. The provider identifies the proper location and then aspirates fluid from the pericardial sac into the syringe, after which he withdraws the needle.

Pericardiocentesis may be performed to relieve pericardial effusion or cardiac tamponade as well as for diagnostic, palliative, or prophylactic purposes.

Coding Tips

Imaging guidance, if performed, is included with this code. Do not report separately.

For percutaneous pericardial drainage with insertion of an indwelling catheter, with or without fluoroscopy and/or ultrasound guidance, in a patient 6 years old and older without congenital cardiac anomaly, report 33017, and for the same procedure in a newborn through 5 years of age or in a patient of any age with congenital cardiac anomaly, report 33018.

For percutaneous pericardial drainage with insertion of indwelling catheter under computed tomography (CT) imaging guidance, report 33019.

Fee Schedule Information

Medicare Fees (National): Conversion Factor $32.3465, Facility Fee: $222.87, Non Facility Fee: $222.87
RVU (Facility): Work RVU 4.40, Practice Exp. RVU 1.52, Malpractice RVU 0.97, Total RVU 6.89

RVU (Non-Facility): Work RVU 4.40, Practice Exp. RVU 1.52, Malpractice RVU 0.97, Total RVU 6.89
MPFS Payment Policy Indicators: Global Period 000, Preop 0.00%, Intraop 0.00%, Postop 0.00%, MPFS Status Indicator: A, PC/TC Indicator: 0, Endoscopic Base Code: None
Practitioner MUE: 1

Modifier Allowances

22, 51, 52, 53, 58, 59, 63, 73, 74, 76, 77, 78, 79, 99, AQ, AR, CG, CR, ET, GA, GC, GJ, GR, GZ, KX, PD, Q5, Q6, QJ, SC, XE, XP, XS, XU

NCCI Alerts (version 31.0)

$0213T^0$, $0216T^0$, $0596T^1$, $0597T^1$, $0694T^1$, $0708T^1$, $0709T^1$, 12001^1, 12002^1, 12004^1, 12005^1, 12006^1, 12007^1, 12020^1, 12021^1, 12031^1, 12032^1, 12034^1, 12035^1, 12036^1, 12037^1, 12041^1, 12042^1, 12044^1, 12045^1, 12046^1, 12047^1, 13100^1, 13101^1, 13102^1, 13120^1, 13121^1, 13122^1, 13131^1, 13132^1, 13133^1, 33210^0, 33211^0, 35201^1, 35206^1, 35211^1, 35216^1, 35226^1, 35241^1, 35251^1, 35261^1, 35266^1, 35271^1, 35276^1, 35286^1, 36000^1, 36400^1, 36405^1, 36406^1, 36410^1, 36420^1, 36425^1, 36430^1, 36440^1, 36591^0, 36592^0, 36600^1, 36640^1, 39000^1, 39010^1, 43752^1, 51701^1, 51702^1, 51703^1, 62320^0, 62321^0, 62322^0, 62323^0, 62324^0, 62325^0, 62326^0, 62327^0, 64400^0, 64405^0, 64408^0, 64415^0, 64416^0, 64417^0, 64418^0, 64420^0, 64421^0, 64425^0, 64430^0, 64435^0, 64445^0, 64446^0, 64447^0, 64448^0, 64449^0, 64450^0, 64451^0, 64454^0, 64461^0, 64462^0, 64463^0, 64479^0, 64480^0, 64483^0, 64484^0, 64486^0, 64487^0, 64488^0, 64489^0, 64490^0, 64491^0, 64492^0, 64493^0, 64494^0, 64495^0, 64505^0, 64510^0, 64517^0, 64520^0, 64530^0, 69990^0, 76000^1, 76376^1, 76377^1, 76380^1, 76942^1, 76998^1, 77001^1, 77002^1, 77012^1, 77021^1, 93000^1, 93005^1, 93010^1, 93040^1, 93041^1, 93042^1, 93303^1, 93304^1, 93306^1, 93307^1, 93308^1, 93312^1, 93313^1, 93314^1, 93315^1, 93316^1, 93317^1, 93318^1, 93320^1, 93321^1, 93325^1, 93355^1, 94002^1, 94200^1, 94680^1, 94681^1, 94690^1, 95812^1, 95813^1, 95816^1, 95819^1, 95822^1, 95829^1, 95955^1, 96360^1, 96361^1, 96365^1, 96366^1, 96367^1, 96368^1, 96372^1, 96374^1, 96375^1, 96376^1, 96377^1, 96523^0, 99155^0, 99156^0, 99157^0, 99211^1, 99212^1, 99213^1, 99214^1, 99215^1, 99221^1, 99222^1, 99223^1, 99231^1, 99232^1, 99233^1, 99234^1, 99235^1, 99236^1, 99238^1, 99239^1, 99242^1, 99243^1, 99244^1, 99245^1, 99252^1, 99253^1, 99254^1, 99255^1, 99291^1, 99292^1, 99304^1, 99305^1, 99306^1, 99307^1, 99308^1, 99309^1, 99310^1, 99315^1, 99316^1, 99347^1, 99348^1, 99349^1, 99350^1, 99374^1, 99375^1, 99377^1, 99378^1, 99446^0, 99447^0, 99448^0, 99449^0, 99451^0, 99452^0, 99495^1, 99496^1, $G0463^1$, $G0471^1$

ICD-10-CM Cross References

A18.84, C38.0, C45.2, C79.89, C79.9, D15.1, D48.7, I01.0, I09.2, I25.10, I30.0-I30.9, I31.0-I31.2, I31.31, I31.39, I31.4, I31.8, I31.9, I32, I47.0, I47.20-I47.29, I51.7, I97.110, I97.111, I97.120, I97.121, I97.130, I97.131, I97.190, I97.191, I97.710, I97.711, I97.790, I97.791, I97.88, I97.89, M32.12, R06.00-R06.03, R06.09, R06.3, R06.83, R06.89, R07.82, R07.89, R07.9

33017

Pericardial drainage with insertion of indwelling catheter, percutaneous, including fluoroscopy and/or ultrasound guidance, when performed; 6 years and older without congenital cardiac anomaly

Clinical Responsibility

This procedure is performed on a patient who is 6 years old or older and who does not have a congenital cardiac anomaly. When the patient is appropriately prepped and anesthetized, the provider selects a site typically between the xiphoid process and the left sternocostal margin. The provider may create a small incision to reduce needle resistance and then advances a needle attached to a syringe or suction device into the pericardial space. The provider often uses fluoroscopic or ultrasound imaging guidance to ensure accuracy of the needle placement. The provider identifies the proper location and then aspirates fluid from the pericardial sac into the syringe, after which he withdraws the needle. He then inserts a catheter through the same puncture site, which he leaves indwelling for further drainage in case the fluid builds up again.

Pericardial drainage may be performed to relieve pericardial effusion or cardiac tamponade as well as for diagnostic, palliative, or prophylactic purposes.

Modifier: 0 = not allowed, 1 = allowed

Coding Tips

Ultrasound or fluoroscopic imaging is included with this procedure, so do not report it separately.

For the same procedure in a newborn through 5 years of age or in a patient of any age with congenital cardiac anomaly, report 33018.

For pericardiocentesis including imaging guidance when performed, report 33016.

For percutaneous pericardial drainage with insertion of indwelling catheter under computed tomography (CT) imaging guidance, report 33019.

Fee Schedule Information

Medicare Fees (National): Conversion Factor $32.3465, Facility Fee: $234.51, Non Facility Fee: $234.51
RVU (Facility): Work RVU 4.62, Practice Exp. RVU 1.61, Malpractice RVU 1.02, Total RVU 7.25
RVU (Non-Facility): Work RVU 4.62, Practice Exp. RVU 1.61, Malpractice RVU 1.02, Total RVU 7.25
MPFS Payment Policy Indicators: Global Period 000, Preop 0.00%, Intraop 0.00%, Postop 0.00%, MPFS Status Indicator: A, PC/TC Indicator: 0, Endoscopic Base Code: None
Practitioner MUE: 1

Modifier Allowances

22, 47, 51, 52, 53, 58, 59, 63, 76, 77, 78, 79, 99, AQ, AR, CG, CR, ET, GA, GC, GJ, GR, GZ, KX, PD, Q5, Q6, QJ, SC, XE, XP, XS, XU

NCCI Alerts (version 31.0)

$0213T^0$, $0216T^0$, $0596T^1$, $0597T^1$, $0694T^1$, $0708T^1$, $0709T^1$, 11000^1, 11001^1, 11042^1, 11043^1, 11044^1, 11045^1, 11046^1, 11047^1, 12001^1, 12002^1, 12004^1, 12005^1, 12006^1, 12007^1, 12020^1, 12021^1, 12031^1, 12032^1, 12034^1, 12035^1, 12036^1, 12037^1, 12041^1, 12042^1, 12044^1, 12045^1, 12046^1, 12047^1, 13100^1, 13101^1, 13102^1, 13120^1, 13121^1, 13122^1, 13131^1, 13132^1, 13133^1, 33016^1, 33210^0, 33211^0, 36000^1, 36400^1, 36405^1, 36406^1, 36410^1, 36420^1, 36425^1, 36430^1, 36440^1, 36591^0, 36592^0, 36600^1, 36640^1, 39000^1, 39010^1, 43752^1, 51701^1, 51702^1, 51703^1, 62320^0, 62321^0, 62322^0, 62323^0, 62324^0, 62325^0, 62326^0, 62327^0, 64400^0, 64405^0, 64408^0, 64415^0, 64416^0, 64417^0, 64418^0, 64420^0, 64421^0, 64425^0, 64430^0, 64435^0, 64445^0, 64446^0, 64447^0, 64448^0, 64449^0, 64450^0, 64451^0, 64454^0, 64461^0, 64462^0, 64463^0, 64479^0, 64480^0, 64483^0, 64484^0, 64486^0, 64487^0, 64488^0, 64489^0, 64490^0, 64491^0, 64492^0, 64493^0, 64494^0, 64495^0, 64505^0, 64510^0, 64517^0, 64520^0, 64530^0, 69990^0, 75989^1, 76000^1, 76376^1, 76377^1, 76380^1, 76942^1, 76998^1, 77001^1, 77002^1, 77012^1, 77021^1, 93000^1, 93005^1, 93010^1, 93040^1, 93041^1, 93042^1, 93303^1, 93304^1, 93306^1, 93307^1, 93308^1, 93312^1, 93313^1, 93314^1, 93315^1, 93316^1, 93317^1, 93318^1, 93320^1, 93321^1, 93325^1, 93355^1, 94002^1, 94200^1, 94680^1, 94681^1, 94690^1, 95812^1, 95813^1, 95816^1, 95819^1, 95822^1, 95829^1, 95955^1, 96360^1, 96361^1, 96365^1, 96366^1, 96367^1, 96368^1, 96372^1, 96374^1, 96375^1, 96376^1, 96377^1, 96523^0, 97597^1, 97598^1, 97602^1, 99155^0, 99156^0, 99157^0, 99211^1, 99212^1, 99213^1, 99214^1, 99215^1, 99221^1, 99222^1, 99223^1, 99231^1, 99232^1, 99233^1, 99234^1, 99235^1, 99236^1, 99238^1, 99239^1, 99242^1, 99243^1, 99244^1, 99245^1, 99252^1, 99253^1, 99254^1, 99255^1, 99291^1, 99292^1, 99304^1, 99305^1, 99306^1, 99307^1, 99308^1, 99309^1, 99310^1, 99315^1, 99316^1, 99347^1, 99348^1, 99349^1, 99350^1, 99374^1, 99375^1, 99377^1, 99378^1, 99446^0, 99447^0, 99448^0, 99449^0, 99451^0, 99452^0, 99495^0, 99496^0, $G0463^1$, $G0471^1$

ICD–10–CM Cross References

A18.84, C38.0, C45.2, C79.89, C79.9, D15.1, D48.7, I01.0, I09.2, I25.10, I30.0-I30.9, I31.0-I31.2, I31.31, I31.39, I31.4, I31.8, I31.9, I32, I47.0, I47.20-I47.29, I51.7, I97.110, I97.111, I97.120, I97.121, I97.130, I97.131, I97.190, I97.191, I97.710, I97.711, I97.790, I97.791, I97.88, I97.89, M32.12, R06.00-R06.03, R06.09, R06.3, R06.83, R06.89, R07.82, R07.89, R07.9

33018

Pericardial drainage with insertion of indwelling catheter, percutaneous, including fluoroscopy and/or ultrasound guidance, when performed; birth through 5 years of age or any age with congenital cardiac anomaly

Clinical Responsibility

This procedure is performed on a patient who is a newborn up through 5 years old or any patient of any age with a congenital cardiac anomaly. When the patient is appropriately prepped and anesthetized, the provider selects a site typically between the xiphoid process and the left sternocostal margin. The provider may create a small incision to reduce needle resistance and then advances a needle attached to a syringe or suction device into the pericardial space. The provider usually uses fluoroscopic or ultrasound imaging guidance to ensure accuracy of the needle placement and assess the congenital cardiac anomaly. The provider identifies the proper location and then aspirates fluid from the pericardial sac into the syringe, after which he withdraws the needle. He then inserts a catheter through the same puncture site, which he leaves indwelling for further drainage in case the fluid builds up again.

Pericardial drainage may be performed to relieve pericardial effusion or cardiac tamponade as well as for diagnostic, palliative, or prophylactic purposes.

Coding Tips

Ultrasound or fluoroscopic imaging is included with this procedure, so do not report it separately.

For the same procedure in a patient 6 years old and older without congenital cardiac anomaly, report 33017.

For pericardiocentesis including imaging guidance when performed, report 33016.

For percutaneous pericardial drainage with insertion of indwelling catheter under computed tomography (CT) imaging guidance, report 33019.

Fee Schedule Information

Medicare Fees (National): Conversion Factor $32.3465, Facility Fee: $275.27, Non Facility Fee: $275.27
RVU (Facility): Work RVU 5.40, Practice Exp. RVU 1.86, Malpractice RVU 1.25, Total RVU 8.51
RVU (Non-Facility): Work RVU 5.40, Practice Exp. RVU 1.86, Malpractice RVU 1.25, Total RVU 8.51
MPFS Payment Policy Indicators: Global Period 000, Preop 0.00%, Intraop 0.00%, Postop 0.00%, MPFS Status Indicator: A, PC/TC Indicator: 0, Endoscopic Base Code: None
Practitioner MUE: 1

Modifier Allowances

22, 47, 51, 52, 53, 58, 59, 63, 76, 77, 78, 79, 99, AQ, AR, CG, CR, ET, GA, GC, GJ, GR, GZ, KX, PD, Q5, Q6, QJ, SC, XE, XP, XS, XU

Modifier: 0 = not allowed, 1 = allowed

33050

Resection of pericardial cyst or tumor

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider makes an incision, typically on the front of the chest, known as median sternotomy, or on the side, known as anterolateral thoracotomy, to approach the pericardium. She excises the mass with margins. She may use a bovine pericardial patch to close the defect. The provider closes the surgical incisions and dresses the sternal wound.

Illustration

Pericardium

Removal of cyst

Cyst
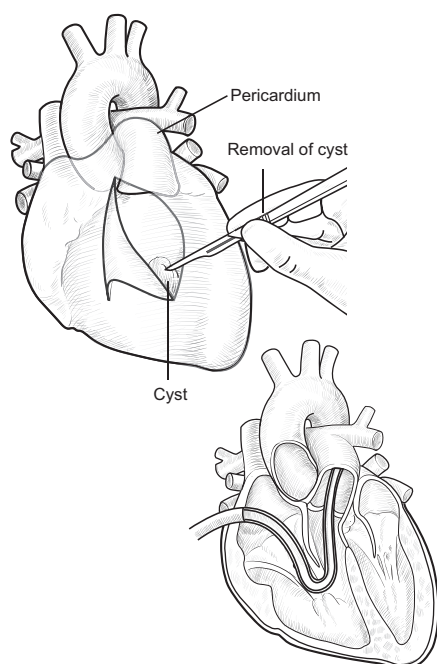
33050

Fee Schedule Information

Medicare Fees (National): Conversion Factor $32.3465, Facility Fee: $970.40, Non Facility Fee: $970.40

RVU (Facility): Work RVU 16.97, Practice Exp. RVU 8.88, Malpractice RVU 4.15, Total RVU 30.00

RVU (Non-Facility): Work RVU 16.97, Practice Exp. RVU 8.88, Malpractice RVU 4.15, Total RVU 30.00

MPFS Payment Policy Indicators: Global Period 090, Preop 9.00%, Intraop 84.00%, Postop 7.00%, MPFS Status Indicator: A, PC/TC Indicator: 0, Endoscopic Base Code: None

Practitioner MUE: 1

Modifier Allowances

22, 47, 51, 52, 53, 54, 55, 56, 58, 59, 62, 63, 76, 77, 78, 79, 80, 81, 82, 99, AQ, AR, AS, CR, ET, GA, GC, GJ, GR, KX, PD, Q5, Q6, QJ, XE, XP, XS, XU

NCCI Alerts (version 31.0)

$0213T^0$, $0216T^0$, $0596T^1$, $0597T^1$, $0708T^1$, $0709T^1$, 11000^1, 11001^1, 11004^1, 11005^1, 11006^1, 11042^1, 11043^1, 11044^1, 11045^1, 11046^1, 11047^1, 12001^1, 12002^1, 12004^1, 12005^1, 12006^1, 12007^1, 12011^1, 12013^1, 12014^1, 12015^1, 12016^1, 12017^1, 12018^1, 12020^1, 12021^1, 12031^1, 12032^1, 12034^1, 12035^1, 12036^1, 12037^1, 12041^1, 12042^1, 12044^1, 12045^1, 12046^1, 12047^1, 12051^1, 12052^1, 12053^1, 12054^1, 12055^1, 12056^1, 12057^1, 13100^1, 13101^1, 13102^1, 13120^1, 13121^1, 13122^1, 13131^1, 13132^1, 13133^1, 13151^1, 13152^1, 13153^1, 20680^0, 21750^0, 32100^1, 32551^1, 32554^1, 32555^1, 32556^1, 32557^1, 32604^0, 32661^0, 33025^0, 33130^1, 33140^0, 33141^1, 33210^0, 33211^0, 33254^0, 33255^0, 33256^0, 33310^1, 33315^1, 36000^1, 36400^1, 36405^1, 36406^1, 36410^1, 36420^1, 36425^1, 36430^1, 36440^1, 36591^1, 36592^0, 36600^1, 36640^1, 39000^1, 39010^1, 43752^1, 51701^1, 51702^1, 51703^1, 62320^1, 62321^0, 62322^0, 62323^0, 62324^0, 62325^0, 62326^0, 62327^0, 64400^0, 64405^0, 64408^0, 64415^0, 64416^0, 64417^0, 64418^0, 64420^0, 64421^0, 64425^0, 64430^0, 64435^0, 64445^0, 64446^0, 64447^0, 64448^0, 64449^0, 64450^0, 64451^0, 64454^0, 64461^0, 64462^0, 64463^0, 64479^0, 64480^0, 64483^0, 64484^0, 64486^0, 64487^0, 64488^0, 64489^0, 64490^0, 64491^0, 64492^0, 64493^0, 64494^0, 64495^0, 65505^0, 64510^0, 64517^0, 64520^0, 64530^0, 69990^0, 92012^1, 92014^1, 93000^1, 93005^1, 93010^1, 93040^1, 93041^1, 93042^1, 93318^1, 93355^0, 94002^1, 94200^1, 94680^1, 94681^1, 94690^1, 95812^1, 95813^1, 95816^1, 95819^1, 95822^1, 95829^1, 95955^1, 96360^1, 96361^1, 96365^1, 96366^1, 96367^1, 96368^1, 96372^1, 96374^1, 96375^1, 96376^1, 96377^1, 96523^0, 97597^1, 97598^1, 97602^1, 99155^0, 99156^0, 99157^0, 99211^1, 99212^1, 99213^1, 99214^1, 99215^1, 99221^1, 99222^1, 99223^1, 99231^1, 99232^1, 99233^1, 99234^1, 99235^1, 99236^1, 99238^1, 99239^1, 99242^1, 99243^1, 99244^1, 99245^1, 99252^1, 99253^1, 99254^1, 99255^1, 99291^1, 99292^1, 99304^1, 99305^1, 99306^1, 99307^1, 99308^1, 99309^1, 99310^1, 99315^1, 99316^1, 99347^1, 99348^1, 99349^1, 99350^1, 99374^1, 99375^1, 99377^1, 99378^1, 99446^0, 99447^0, 99448^0, 99449^0, 99451^0, 99452^0, 99495^0, 99496^0, $G0463^1$, $G0471^1$

ICD-10-CM Cross References

C38.0, C45.2, C79.89, C79.9, D15.1, D48.7, I31.8, I97.622, I97.641, I97.648, N80.B1, N80.B2, N80.B31-N80.B39, N80.B4, N80.B5, N80.B6, Q23.88, Q23.9, Q24.8

33120

Excision of intracardiac tumor, resection with cardiopulmonary bypass

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider makes an incision on the sternum, known as full median sternotomy, to access the heart. She institutes cardiopulmonary bypass, often by cannulating blood vessels through this incision. The provider then performs tumor resection, or removal, through the right atrium and across the intra-atrial septum; or the provider goes through the tricuspid valve to excise the tumor. The provider then closes the incision and dresses the wound, ensuring the patient's normal cardiac and pulmonary functions have returned.

Coding Tips

For resection of an external cardiac tumor, see 33130.

Illustration
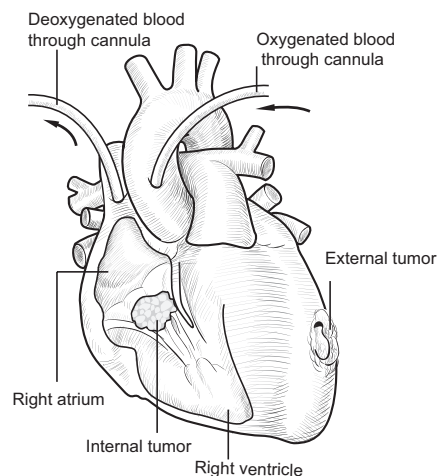
Deoxygenated blood through cannula

Oxygenated blood through cannula

External tumor

Right atrium

Internal tumor

Right ventricle

33120

33050 — 33120

CARDIOVASCULAR SYSTEM

33602

Closure of semilunar valve (aortic or pulmonary) by suture or patch

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider makes an incision in the chest, typically median sternotomy. He places the patient on cardiopulmonary bypass. He makes an incision to open the left ventricle to access the aortic semilunar valve or to open the right ventricle to access the pulmonary semilunar valve. He cleans the leaflets and then uses either sutures or a patch to repair the defect. He closes the incisions in the ventricle and removes the patient from cardiopulmonary bypass. The provider then removes any instruments, checks for bleeding, and finally the incision in the chest.

Illustration

Cardiopulmonary bypass

Aortic valve

Aortic valve is repaired by suturing
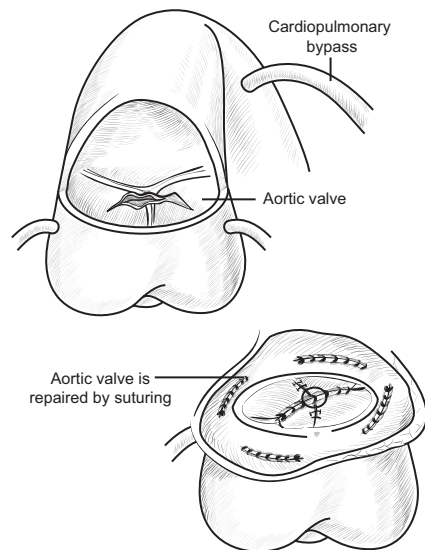
33602

Fee Schedule Information

Medicare Fees (National): Conversion Factor $32.3465, Facility Fee: $1,601.15, Non Facility Fee: $1,601.15
RVU (Facility): Work RVU 29.34, Practice Exp. RVU 12.99, Malpractice RVU 7.17, Total RVU 49.50
RVU (Non-Facility): Work RVU 29.34, Practice Exp. RVU 12.99, Malpractice RVU 7.17, Total RVU 49.50
MPFS Payment Policy Indicators: Global Period 090, Preop 9.00%, Intraop 84.00%,

Postop 7.00%, MPFS Status Indicator: A, PC/TC Indicator: 0, Endoscopic Base Code: None
Practitioner MUE: 1

Modifier Allowances

22, 47, 51, 52, 53, 54, 55, 56, 58, 59, 62, 63, 76, 77, 78, 79, 80, 81, 82, 99, AQ, AR, AS, CR, ET, GA, GC, GJ, GR, KX, PD, Q5, Q6, QJ, XE, XP, XS, XU

NCCI Alerts (version 31.0)

0213T[0], 0216T[0], 0596T[1], 0597T[1], 0632T[1], 0708T[1], 0709T[1], 11000[1], 11001[1], 11004[1], 11005[1], 11006[1], 11042[1], 11043[1], 11044[1], 11045[1], 11046[1], 11047[1], 12001[1], 12002[1], 12004[1], 12005[1], 12006[1], 12007[1], 12011[1], 12013[1], 12014[1], 12015[1], 12016[1], 12017[1], 12018[1], 12020[1], 12021[1], 12031[1], 12032[1], 12034[1], 12035[1], 12036[1], 12037[1], 12041[1], 12042[1], 12044[1], 12045[1], 12046[1], 12047[1], 12051[1], 12052[1], 12053[1], 12054[1], 12055[1], 12056[1], 12057[1], 13100[1], 13101[1], 13102[1], 13120[1], 13121[1], 13122[1], 13131[1], 13132[1], 13133[1], 13151[1], 13152[1], 13153[1], 20680[0], 21750[0], 32100[1], 32551[1], 32554[1], 32555[1], 32556[1], 32557[1], 33140[0], 33141[1], 33210[0], 33211[0], 33254[0], 33255[0], 33256[0], 33267[0], 33310[1], 33315[1], 33411[1], 33412[1], 33413[1], 33414[1], 33416[1], 33417[1], 33530[1], 35226[1], 36000[1], 36010[1], 36011[1], 36012[1], 36013[1], 36014[1], 36140[1], 36160[1], 36200[1], 36215[1], 36216[1], 36217[1], 36245[1], 36246[1], 36247[1], 36400[1], 36405[1], 36406[1], 36410[1], 36420[1], 36425[1], 36430[1], 36440[1], 36591[0], 36592[0], 36600[1], 36640[1], 39000[1], 39010[1], 43752[1], 51701[1], 51702[1], 51703[1], 62320[0], 62321[0], 62322[0], 62323[0], 62324[0], 62325[0], 62326[0], 62327[0], 64400[0], 64405[0], 64408[0], 64415[0], 64416[0], 64417[0], 64418[0], 64420[0], 64421[0], 64425[0], 64430[0], 64435[0], 64445[0], 64446[0], 64447[0], 64448[0], 64449[0], 64450[0], 64451[0], 64454[0], 64461[0], 64462[0], 64463[0], 64479[0], 64480[0], 64483[0], 64484[0], 64486[0], 64487[0], 64488[0], 64489[0], 64490[0], 64491[0], 64492[0], 64493[0], 64494[0], 64495[0], 65505[0], 64510[0], 64517[0], 64520[0], 64530[0], 69990[0], 92012[1], 92014[1], 92960[1], 92961[1], 93000[1], 93005[1], 93010[1], 93040[1], 93041[1], 93042[1], 93318[1], 93355[0], 94002[1], 94200[1], 94680[1], 94681[1], 94690[1], 95812[1], 95813[1], 95816[1], 95819[1], 95822[1], 95829[1], 95955[1], 96360[1], 96361[1], 96365[1], 96366[1], 96367[1], 96368[1], 96372[1], 96374[1], 96375[1], 96376[1], 96377[1], 96523[0], 97597[1], 97598[1], 97602[1], 99155[0], 99156[0], 99157[0], 99211[1], 99212[1], 99213[1], 99214[1], 99215[1], 99221[1], 99222[1], 99223[1], 99231[1], 99232[1], 99233[1], 99234[1], 99235[1], 99236[1], 99238[1], 99239[1], 99242[1], 99243[1], 99244[1], 99245[1], 99252[1], 99253[1], 99254[1], 99255[1], 99291[1], 99292[1], 99304[1], 99305[1], 99306[1], 99307[1], 99308[1], 99309[1], 99310[1], 99315[1], 99316[1], 99347[1], 99348[1], 99349[1], 99350[1], 99374[1], 99375[1], 99377[1], 99378[1], 99446[0], 99447[0], 99448[0], 99449[0], 99451[0], 99452[0], 99495[0], 99496[0], G0463[1], G0471[1]

ICD–10–CM Cross References

I08.1-I08.3, I08.8, I08.9, I09.1, I09.89, I35.0-I35.9, I37.0-I37.9, I97.110, I97.111, I97.120, I97.121, I97.130, I97.131, I97.190, I97.191, I97.710, I97.711, I97.790, I97.791, I97.88, I97.89, Q20.9, Q22.0-Q22.3, Q23.0, Q23.1, Q23.81, Q23.82, Q24.3, Q24.4, Q24.9

33606

Anastomosis of pulmonary artery to aorta (Damus-Kaye-Stansel procedure)

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider makes an incision in the chest to access the heart. She places the patient on cardiopulmonary bypass, or CPB. She cuts into the main pulmonary artery and then connects the end of the pulmonary artery to the ascending aorta. She may use a synthetic patch graft to construct the connection. She takes the patient off CPB. The provider then removes any instruments, checks for bleeding, and closes the incisions in the chest.

Modifier: 0 = not allowed, 1 = allowed

Mediastinum/Diaphragm

39010

Mediastinotomy with exploration, drainage, removal of foreign body, or biopsy; transthoracic approach, including either transthoracic or median sternotomy

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider positions the patient either for a median sternotomy incision or in a left or right lateral position for a thoracotomy. For a thoracotomy approach, the provider incises between the ribs. In a median sternotomy, he incises the chest from the sternal notch to the xiphoid process and then splits the sternal bone to access the space between the lungs.

In either approach, the provider carefully inspects the mediastinum for any signs of trauma or disease. He drains any fluid collections, including cysts, removes any foreign bodies found, or biopsies the tissue. Once the procedure is complete, he reapproximates the tissue between the ribs in layers to close a thoracotomy approach, or he wires the sternum together and closes the soft tissue in layers over the bone for closure of a median sternotomy incision.

Coding Tips

In many patients, the provider can reach the upper mediastinum by an incision at the base of the neck above the sternum, or breastbone. However, patients with disease lower in the chest or with disease or scarring that prevents access at this level require another approach.

Foreign bodies in the mediastinum may be of traumatic origin or may be left from previous surgical procedures or medical treatment such as wires used to repair the sternum, or catheters. The provider differentiates these services by the diagnosis code the provider applies.

When the provider performs biopsies in the mediastinum, the lesions are often mediastinal lymph nodes. When the provider biopsies lymph nodes in the mediastinum, do not report these services as lymph node procedures. Rather, report these procedures using the mode of access codes in the mediastinum section, see 39000 to 39499.

Fee Schedule Information

Medicare Fees (National): Conversion Factor $32.3465, Facility Fee: $763.38, Non Facility Fee: $763.38
RVU (Facility): Work RVU 13.19, Practice Exp. RVU 7.27, Malpractice RVU 3.14, Total RVU 23.60
RVU (Non-Facility): Work RVU 13.19, Practice Exp. RVU 7.27, Malpractice RVU 3.14, Total RVU 23.60
MPFS Payment Policy Indicators: Global Period 090, Preop 9.00%, Intraop 84.00%, Postop 7.00%, MPFS Status Indicator: A, PC/TC Indicator: 0, Endoscopic Base Code: None
Practitioner MUE: 1

Modifier Allowances

22, 47, 51, 52, 53, 54, 55, 56, 58, 59, 62, 63, 76, 77, 78, 79, 80, 81, 82, 99, AQ, AR, AS, CR, ET, GA, GC, GJ, GR, KX, Q5, Q6, QJ, XE, XP, XS, XU

NCCI Alerts (version 31.0)

$0213T^0$, $0216T^0$, $0596T^1$, $0597T^1$, $0708T^1$, $0709T^1$, 10005^1, 10007^1, 10009^1, 10011^1, 10021^1, 11000^1, 11001^1, 11004^1, 11005^1, 11006^1, 11042^1, 11043^1, 11044^1, 11045^1, 11046^1, 11047^1, 12001^1, 12002^1, 12004^1, 12005^1, 12006^1, 12007^1, 12011^1, 12013^1, 12014^1, 12015^1, 12016^1, 12017^1, 12018^1, 12020^1, 12021^1, 12031^1, 12032^1, 12034^1, 12035^1, 12036^1, 12037^1, 12041^1, 12042^1, 12044^1, 12045^1, 12046^1, 12047^1, 12051^1, 12052^1, 12053^1, 12054^1, 12055^1, 12056^1, 12057^1, 13100^1, 13101^1, 13102^1, 13120^1, 13121^1, 13122^1, 13131^1, 13132^1, 13133^1, 13151^1, 13152^1, 13153^1, 32100^1, 32551^1, 32556^1, 32557^1, 32606^1, 36000^1, 36400^1, 36405^1, 36406^1, 36410^1, 36420^1, 36425^1, 36430^1, 36440^1, 36591^0, 36592^0, 36600^1, 36640^1, 38530^0, 39401^1, 39402^1, 43752^1, 51701^1, 51702^1, 51703^1, 62320^0, 62321^0, 62322^0, 62323^0, 62324^0, 62325^0, 62326^0, 62327^0, 64400^0, 64405^0, 64408^0, 64415^0, 64416^0, 64417^0, 64418^0, 64420^0, 64421^0, 64425^0, 64430^0, 64435^0, 64445^0, 64446^0, 64447^0, 64448^0, 64449^0, 64450^0, 64451^0, 64454^0, 64461^0, 64462^0, 64463^0, 64479^0, 64480^0, 64483^0, 64484^0, 64486^0, 64487^0, 64488^0, 64489^0, 64490^0, 64491^0, 64492^0, 64493^0, 64494^0, 64495^0, 65505^0, 64510^0, 64517^0, 64520^0, 64530^0, 69990^0, 92012^1, 92014^1, 93000^1, 93005^1, 93010^1, 93040^1, 93041^1, 93042^1, 93318^1, 93355^1, 94002^1, 94200^1, 94680^1, 94681^1, 94690^1, 95812^1, 95813^1, 95816^1, 95819^1, 95822^1, 95829^1, 95955^1, 96360^1, 96361^1, 96365^1, 96366^1, 96367^1, 96368^1, 96372^1, 96374^1, 96375^1, 96376^1, 96377^1, 96523^0, 97597^1, 97598^1, 97602^1, 99155^0, 99156^0, 99157^0, 99211^1, 99212^1, 99213^1, 99214^1, 99215^1, 99221^1, 99222^1, 99223^1, 99231^1, 99232^1, 99233^1, 99234^1, 99235^1, 99236^1, 99238^1, 99239^1, 99242^1, 99243^1, 99244^1, 99245^1, 99252^1, 99253^1, 99254^1, 99255^1, 99291^1, 99292^1, 99304^1, 99305^1, 99306^1, 99307^1, 99308^1, 99309^1, 99310^1, 99315^1, 99316^1, 99347^1, 99348^1, 99349^1, 99350^1, 99374^1, 99375^1, 99377^1, 99378^1, 99446^0, 99447^0, 99448^0, 99449^0, 99451^0, 99452^0, 99495^0, 99496^0, $G0463^1$, $G0471^1$

ICD-10-CM Cross References

C38.1-C38.3, D15.2, D48.112, J85.3, J98.51, J98.59, S21.309A, S25.90XA, S27.1XXA, S27.9XXA, Z18.09, Z18.10, Z18.11, Z18.2

39200

Resection of mediastinal cyst

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider positions the patient either for a median sternotomy incision, or in a left or right lateral position for thoracotomy, depending upon the location of the cyst. For a thoracotomy, the provider incises the ribs and uses a rib spreader as necessary to obtain access to the target area. In a sternal approach, he incises the chest from the sternal notch to the xiphoid process and then splits the sternal bone to access the space between the lungs.

Then he carefully inspects the mediastinum for any signs of disease. He resects a cyst, which he identifies either radiographically prior to the procedure, or he discovers during exploration. Once the procedure is complete, the provider reapproximates the tissue between the ribs in layers to close a thoracotomy approach, or he wires the sternum together and closes the soft tissue in layers over the bone for closure of a median sternotomy incision.

Fee Schedule Information

Medicare Fees (National): Conversion Factor $32.3465, Facility Fee: $837.77, Non Facility Fee: $837.77
RVU (Facility): Work RVU 15.09, Practice Exp. RVU 7.13, Malpractice RVU 3.68, Total RVU 25.90
RVU (Non-Facility): Work RVU 15.09, Practice Exp. RVU 7.13, Malpractice RVU 3.68, Total RVU 25.90
MPFS Payment Policy Indicators: Global Period 090, Preop 9.00%, Intraop 84.00%, Postop 7.00%, MPFS Status Indicator: A, PC/TC Indicator: 0, Endoscopic Base Code: None
Practitioner MUE: 1

Modifier Allowances

22, 47, 51, 52, 53, 54, 55, 56, 58, 62, 63, 76, 77, 78, 79, 80, 81, 82, 99, AQ, AR, AS, CR, ET, GA, GC, GJ, GR, KX, Q5, Q6, QJ

NCCI Alerts (version 31.0)

0213T[0], 0216T[0], 0596T[1], 0597T[1], 0708T[1], 0709T[1], 10005[1], 10007[1], 10009[1], 10011[1], 10021[1], 11000[1], 11001[1], 11004[1], 11005[1], 11006[1], 11042[1], 11043[1], 11044[1], 11045[1], 11046[1], 11047[1], 12001[1], 12002[1], 12004[1], 12005[1], 12006[1], 12007[1], 12011[1], 12013[1], 12014[1], 12015[1], 12016[1], 12017[1], 12018[1], 12020[1], 12021[1], 12031[1], 12032[1], 12034[1], 12035[1], 12036[1], 12037[1], 12041[1], 12042[1], 12044[1], 12045[1], 12046[1], 12047[1], 12051[1], 12052[1], 12053[1], 12054[1], 12055[1], 12056[1], 12057[1], 13100[1], 13101[1], 13102[1], 13120[1], 13121[1], 13122[1], 13131[1], 13132[1], 13133[1], 13151[1], 13152[1], 13153[1], 32551[1], 32556[1], 32557[1], 32606[1], 32662[0], 36000[1], 36400[1], 36405[1], 36406[1], 36410[1], 36420[1], 36425[1], 36430[1], 36440[1], 36591[0], 36592[0], 36600[1], 36640[1], 39000[1], 39010[1], 39401[1], 39402[1], 43287[0], 43288[0], 43752[1], 51701[1], 51702[1], 51703[1], 60520[0], 60521[0], 60522[0], 62320[0], 62321[0], 62322[0], 62323[0], 62324[0], 62325[0], 62326[0], 62327[0], 64400[0], 64405[0], 64408[0], 64415[0], 64416[0], 64417[0], 64418[0], 64420[0], 64421[0], 64425[0], 64430[0], 64435[0], 64445[0], 64446[0], 64447[0], 64448[0], 64449[0], 64450[0], 64451[0], 64454[0], 64461[0], 64462[0], 64463[0], 64479[0], 64480[0], 64483[0], 64484[0], 64486[0], 64487[0], 64488[0], 64489[0], 64490[0], 64491[0], 64492[0], 64493[0], 64494[0], 64495[0], 64505[0], 64510[0], 64517[0], 64520[0], 64530[0], 69990[0], 92012[1], 92014[1], 93000[1], 93005[1], 93010[1], 93040[1], 93041[1], 93042[1], 93318[1], 93355[1], 94002[1], 94200[1], 94680[1], 94681[1], 94690[1], 95812[1], 95813[1], 95816[1], 95819[1], 95822[1], 95829[1], 95955[1], 96360[1], 96361[1], 96365[1], 96366[1], 96367[1], 96368[1], 96372[1], 96374[1], 96375[1], 96376[1], 96377[1], 96523[0], 97597[1], 97598[1], 97602[1], 99155[0], 99156[0], 99157[0], 99211[1], 99212[1], 99213[1], 99214[1], 99215[1], 99221[1], 99222[1], 99223[1], 99231[1], 99232[1], 99233[1], 99234[1], 99235[1], 99236[1], 99238[1], 99239[1], 99242[1], 99243[1], 99244[1], 99245[1], 99252[1], 99253[1], 99254[1], 99255[1], 99291[1], 99292[1], 99304[1], 99305[1], 99306[1], 99307[1], 99308[1], 99309[1], 99310[1], 99315[1], 99316[1], 99347[1], 99348[1], 99349[1], 99350[1], 99374[1], 99375[1], 99377[1], 99378[1], 99446[0], 99447[0], 99448[0], 99449[0], 99451[0], 99452[0], 99495[0], 99496[0], G0463[1], G0471[1]

ICD-10-CM Cross References

J98.59, Q34.0, Q34.1, Q34.8

39220

Resection of mediastinal tumor

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider positions the patient for a median sternotomy incision, or in a left or right lateral position for thoracotomy, depending upon the location of the tumor. For a thoracotomy, the provider incises the ribs and uses a rib spreader as necessary to ease access to the target area. In a sternal approach, he incises the chest from the sternal notch to the xiphoid process and splits the sternal bone to access the space between the lungs.

He then carefully inspects the mediastinum for any signs of disease. He removes any benign or malignant tumors found. The provider ensures that he stops all bleeding. Once the procedure is complete, the provider reapproximates the tissue between the ribs in layers to close a thoracotomy approach, or he wires the sternum together and closes the soft tissue in layers over the bone for closure of a median sternotomy incision.

Coding Tips

Report code 39220 to describe excision of any benign or malignant tumor in the mediastinal space that a provider removes by open approach, except tumors of the heart and or great vessels such as the aorta, superior or inferior vena cava, caval trunk, pulmonary artery, or pulmonary vein. The provider should wait for the results of pathologic examination before coding so that diagnoses will be as accurate as possible unless previous biopsy has already found that the mass is malignant.

There is no code for excision of a mediastinal tumor via mediastinoscopy so report 39499, Unlisted procedure, mediastinum, to describe that service.

Fee Schedule Information

Medicare Fees (National): Conversion Factor $32.3465, Facility Fee: $1,098.16, Non Facility Fee: $1,098.16
RVU (Facility): Work RVU 19.55, Practice Exp. RVU 10.00, Malpractice RVU 4.40, Total RVU 33.95
RVU (Non-Facility): Work RVU 19.55, Practice Exp. RVU 10.00, Malpractice RVU 4.40, Total RVU 33.95
MPFS Payment Policy Indicators: Global Period 090, Preop 9.00%, Intraop 84.00%, Postop 7.00%, MPFS Status Indicator: A, PC/TC Indicator: 0, Endoscopic Base Code: None
Practitioner MUE: 1

Modifier Allowances

22, 47, 51, 52, 53, 54, 55, 56, 58, 59, 62, 63, 76, 77, 78, 79, 80, 81, 82, 99, AQ, AR, AS, CR, ET, GA, GC, GJ, GR, KX, Q5, Q6, QJ, XE, XP, XS, XU

NCCI Alerts (version 31.0)

0213T[0], 0216T[0], 0596T[1], 0597T[1], 0708T[1], 0709T[1], 11000[1], 11001[1], 11004[1], 11005[1], 11006[1], 11042[1], 11043[1], 11044[1], 11045[1], 11046[1], 11047[1], 12001[1], 12002[1], 12004[1], 12005[1], 12006[1], 12007[1], 12011[1], 12013[1], 12014[1], 12015[1], 12016[1], 12017[1], 12018[1], 12020[1], 12021[1], 12031[1], 12032[1], 12034[1], 12035[1], 12036[1], 12037[1], 12041[1], 12042[1], 12044[1], 12045[1], 12046[1], 12047[1], 12051[1], 12052[1], 12053[1], 12054[1], 12055[1], 12056[1], 12057[1], 13100[1], 13101[1], 13102[1], 13120[1], 13121[1], 13122[1], 13131[1], 13132[1], 13133[1], 13151[1], 13152[1], 13153[1], 32551[1], 32556[1], 32557[1], 32606[1], 32662[0], 36000[1], 36400[1], 36405[1], 36406[1], 36410[1], 36420[1], 36425[1], 36430[1], 36440[1], 36591[0], 36592[0], 36600[1], 36640[1], 39000[1], 39010[1], 39401[1], 39402[1], 43287[0], 43288[0], 43752[1], 51701[1], 51702[1], 51703[1], 60520[0], 60522[0], 62320[0], 62321[0], 62322[0], 62323[0], 62324[0], 62325[0], 62326[0], 62327[0], 64400[0], 64405[0], 64408[0], 64415[0], 64416[0], 64417[0], 64418[0], 64420[0], 64421[0], 64425[0], 64430[0], 64435[0], 64445[0], 64446[0], 64447[0], 64448[0], 64449[0], 64450[0], 64451[0], 64454[0], 64461[0], 64462[0], 64463[0], 64479[0], 64480[0], 64483[0], 64484[0], 64486[0], 64487[0], 64488[0], 64489[0], 64490[0], 64491[0], 64492[0],

Modifier: 0 = not allowed, 1 = allowed

HCPCS Level II Codes

Outpatient PPS

C1761

Catheter, transluminal intravascular lithotripsy, coronary

Clinical Responsibility

Transluminal intravascular lithotripsy of a coronary vessel involves passing a specially designed catheter into the vascular system to reach a coronary (heart) vessel. The procedure fractures calcified lesions, such as by sonic (sound) waves, to increase the luminal diameter. The lumen is the interior of the vessel. Report this code for the supply of a catheter for coronary intravascular lithotripsy.

BETOS

D1A: Medical/surgical supplies

C1824

Generator, cardiac contractility modulation (implantable)

Clinical Responsibility

Report this code for the supply of an implantable generator that delivers electrical pulses to the right ventricular septum of the heart during the myocardial absolute refractory period, the period of time between electrical impulses that cause the heart to contract. The device treats chronic, moderate-to-severe heart failure in patients who are not suited for treatment with other devices such as cardiac resynchronization therapy (CRT).

Coding Tips

This device may be considered investigational or not medically necessary by some payers; check with the payer to determine coverage.

BETOS

D1A: Medical/surgical supplies

C1825

Generator, neurostimulator (implantable), non-rechargeable with carotid sinus baroreceptor stimulation lead(s)

Clinical Responsibility

This code is for a neurostimulator generator that a provider implants along with one or more carotid sinus baroreceptor stimulation electrode leads. The battery in this generator is nonrechargeable with long life.

A carotid sinus is a dilated area where the carotid artery divides. The carotid artery is a large, main artery in the neck that supplies the head and neck with oxygenated blood. The carotid sinus contains baroreceptors, or sensors, that are innervated by the carotid sinus nerve. Activating the baroreceptors sends signals to the brain to initiate the body's control mechanisms to reduce elevated blood pressure.

BETOS

D1A: Medical/surgical supplies

C1833

Monitor, cardiac, including intracardiac lead and all system components (implantable)

Clinical Responsibility

Report this code for an implantable monitoring device that can help monitor patients suffering from high-risk acute coronary (heart) events. The device can detect events such as silent myocardial infarctions by monitoring the patient's heart. For instance, the device may monitor for changes in the ST segment, the period when the heart muscle is contracted to expel blood from the ventricles, and alert the patient to cardiac events. The system includes a lead placed in the heart; the lead connects to an implanted device that analyzes the data from the lead. An external device may receive information from the implanted device to alert the patient.

BETOS

D1A: Medical/surgical supplies

C1982

Catheter, pressure-generating, one-way valve, intermittently occlusive

Clinical Responsibility

Report this code for the supply of an intermittently occlusive, pressure-generating catheter with a one-way valve, such as might be used with an infusion pump. The design helps prevent catheter obstruction by fibrin clots.

Coding Tips

See also C1724 to C1759 Catheters for Multiple Applications.

BETOS

D1A: Medical/surgical supplies

C7557

Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed and intraprocedural coronary fractional flow reserve (ffr) with 3d functional mapping of color-coded ffr values for the coronary tree, derived from coronary angiogram data, for real-time review and interpretation of possible atherosclerotic stenosis(es) intervention

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider makes a small incision to access the vascular system and navigates a catheter (tube) through the vascular system until the catheter is at the opening to a coronary artery. The provider performs angiography, placing the catheter in one or more coronary arteries and injecting dye to visualize

the inside of the vessels. The provider performs left heart catheterization, placing the catheter in one or both left heart chambers (left ventricle, left atrium). The provider may perform left ventriculography, injecting contrast to assess the left ventricle. The provider also uses a coronary fractional flow reserve (FFR) system that works with the angiogram images to create a 3D model of the coronary tree (branching network of arteries) and evaluates the 3D model for blockages that may need treatment. FFR is a measurement used to determine the severity of narrowings, or stenoses, in the coronary arteries. It is a ratio that compares the maximum achievable blood flow in a diseased coronary artery to the theoretical maximum flow in a normal vessel. This measurement helps identify which specific lesions are causing a patient's ischemia (reduced or restricted blood flow). The provider reviews the information, including color-coded FFR values for the coronary tree, in real time and interprets the data to assess the need for intervention, such as stenting. At the end of the procedure, the provider removes the instruments.

BETOS

P2F: Major procedure, cardiovascular-Other

C7562

Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed with intraprocedural coronary fractional flow reserve (ffr) with 3d functional mapping of color-coded ffr values for the coronary tree, derived from coronary angiogram data, for real-time review and interpretation of possible atherosclerotic stenosis(es) intervention

Clinical Responsibility

When the patient is appropriately prepped and anesthetized, the provider makes a small incision to access the vascular system and navigates a catheter (tube) through the vascular system until the catheter is at the opening to a coronary artery. The provider performs angiography, placing the catheter in one or more coronary arteries and injecting dye to visualize

the inside of the vessels. The provider also inserts a catheter into the left side of the heart. The provider may perform left ventriculography, injecting contrast to look at heart function and left-side valves of the heart. The provider also performs right heart catheterization, introducing a catheter into one or more right-sided cardiac chambers or structures (the right atrium, right ventricle, pulmonary artery, pulmonary wedge) and possibly taking blood samples to measure blood gases and measuring cardiac output. The provider also uses a coronary fractional flow reserve (FFR) system that works with the angiogram images to create a 3D model of the coronary tree (branching network of arteries) and evaluates the 3D model for blockages that may need treatment. FFR is a measurement used to determine the severity of narrowings, or stenoses, in the coronary arteries. It is a ratio that compares the maximum achievable blood flow in a diseased coronary artery to the theoretical maximum flow in a normal vessel. This measurement helps identify which specific lesions are causing a patient's ischemia (reduced or restricted blood flow). The provider reviews the information, including color-coded FFR values for the coronary tree, in real time and interprets the data to assess the need for intervention, such as stenting. At the end of the procedure, the provider removes the instruments.

BETOS

P2F: Major procedure, cardiovascular-Other

C9144

Injection, bupivacaine (posimir), 1 mg

Clinical Responsibility

The standard dosage of bupivacaine sold as Posimir® is 660 mg (5 mL). It is supplied as a 5 mL single-dose vial.

Providers may administer Posimir® into the subacromial space under direct arthroscopic visualization to produce postsurgical analgesia following arthroscopic subacromial decompression. The subacromial space is a space created behind the acromion, a bony projection on the shoulder blade, by compressing the subacromial bursa with fluid during a shoulder surgery.

Report this code for 1 mg of bupivacaine sold as Posimir®.

Coding Tips

This code applies only to bupivacaine sold as Posimir®.

This code represents the supply of the drug. Check coding and individual payer guidelines to determine whether you also can report the administration of the drug.

BETOS

O1E: Other drugs

C9758

Blinded procedure for nyha class iii/iv heart failure; transcatheter implantation of interatrial shunt or placebo control, including right heart catheterization, trans-esophageal echocardiography (tee)/intracardiac echocardiography (ice), and all imaging with or without guidance (e.g., ultrasound, fluoroscopy), performed in an approved investigational device exemption (ide) study

Clinical Responsibility

With the patient appropriately prepped and under suitable anesthesia, the provider inserts a catheter into the heart through which he places an interatrial shunt or not (if the patient is a placebo control); he may or may not use imaging guidance. He performs right heart catheterization and transesophageal echo or intracardiac echo. The procedure is part of an FDA-approved clinical trial for an investigational device exemption. If the provider inserts the interatrial shunt device, he effectively decompresses the left atrium while preserving left ventricular filling and cardiac output, which relieves symptoms in patients with heart failure.

A blinded procedure means that one or more parties involved are unaware of which treatment a patient was assigned to or received. In this case, patients may have received an interatrial shunt implanted via a catheter or placebo.

An investigational device exemption is granted by the FDA to allow a company to conduct a clinical trial to collect safety and effectiveness data to qualify for premarket approval of a device.

The New York Heart Association (NYHA) functional classification places patients with heart failure into categories I through IV based on function; patients in class III are comfortable at rest but have marked

Modifier: 0 = not allowed, 1 = allowed

Modifier Descriptors

Modifier	Description
CPT® Modifiers	
22	Increased Procedural Services
23	Unusual Anesthesia
24	Unrelated Evaluation and Management Service by the Same Physician or Other Qualified Health Care Professional During a Postoperative Period
25	Significant, Separately Identifiable Evaluation and Management Service by the Same Physician or Other Qualified Health Care Professional on the Same Day of the Procedure or Other Service
26	Professional Component
27	Multiple Outpatient Hospital E/M Encounters on the Same Date
32	Mandated Services
33	Preventive Services
47	Anesthesia by Surgeon
50	Bilateral Procedure
51	Multiple Procedures
52	Reduced Services
53	Discontinued Procedure
54	Surgical Care Only
55	Postoperative Management Only
56	Preoperative Management Only
57	Decision for Surgery
58	Staged or Related Procedure or Service by the Same Physician or Other Qualified Health Care Professional During the Postoperative Period
59	Distinct Procedural Service
62	Two Surgeons
63	Procedure Performed on Infants less than 4 kg
66	Surgical Team
73	Discontinued Out-Patient Hospital/Ambulatory Surgery Center (ASC) Procedure Prior to the Administration of Anesthesia
74	Discontinued Out-Patient Hospital/Ambulatory Surgery Center (ASC) Procedure After Administration of Anesthesia
76	Repeat Procedure or Service by Same Physician or Other Qualified Health Care Professional
77	Repeat Procedure by Another Physician or Other Qualified Health Care Professional

Modifier	Description
78	Unplanned Return to the Operating/Procedure Room by the Same Physician or Other Qualified Health Care Professional Following Initial Procedure for a Related Procedure During the Postoperative Period
79	Unrelated Procedure or Service by the Same Physician or Other Qualified Health Care Professional During the Postoperative Period
80	Assistant Surgeon
81	Minimum Assistant Surgeon
82	Assistant Surgeon (when qualified resident surgeon not available)
90	Reference (Outside) Laboratory
91	Repeat Clinical Diagnostic Laboratory Test
92	Alternative Laboratory Platform Testing
93	Synchronous Telemedicine Service Rendered Via Telephone or Other Real-Time Interactive Audio-Only Telecommunications System
95	Synchronous Telemedicine Service Rendered Via a Real-Time Interactive Audio and Video Telecommunications System
96	Habilitative Services
97	Rehabilitative Services
99	Multiple Modifiers
CPT® Category II Modifiers	
1P	Performance Measure Exclusion Modifier due to Medical Reasons
2P	Performance Measure Exclusion Modifier due to Patient Reasons
3P	Performance Measure Exclusion Modifier due to System Reasons
8P	Performance Measure Reporting Modifier - Action Not Performed, Reason Not Otherwise Specified
HCPCS Level II Modifiers	
A1	Dressing for one wound
A2	Dressing for two wounds
A3	Dressing for three wounds
A4	Dressing for four wounds
A5	Dressing for five wounds
A6	Dressing for six wounds
A7	Dressing for seven wounds
A8	Dressing for eight wounds
A9	Dressing for nine or more wounds
AA	Anesthesia services performed personally by anesthesiologist

Modifier	Description
AB	Audiology service furnished personally by an audiologist without a physician/npp order for non-acute hearing assessment unrelated to disequilibrium, or hearing aids, or examinations for the purpose of prescribing, fitting, or changing hearing aids; service may be performed once every 12 months, per beneficiary
AD	Medical supervision by a physician: more than four concurrent anesthesia procedures
AE	Registered dietician
AF	Specialty physician
AG	Primary physician
AH	Clinical psychologist
AI	Principal physician of record
AJ	Clinical social worker
AK	Non participating physician
AM	Physician, team member service
AO	Alternate payment method declined by provider of service
AP	Determination of refractive state was not performed in the course of diagnostic ophthalmological examination
AQ	Physician providing a service in an unlisted health professional shortage area (HPSA)
AR	Physician provider services in a physician scarcity area
AS	Physician assistant, nurse practitioner, or clinical nurse specialist services for assistant at surgery
AT	Acute treatment (this modifier should be used when reporting service 98940, 98941, 98942)
AU	Item furnished in conjunction with a urological, ostomy, or tracheostomy supply
AV	Item furnished in conjunction with a prosthetic device, prosthetic or orthotic
AW	Item furnished in conjunction with a surgical dressing
AX	Item furnished in conjunction with dialysis services
AY	Item or service furnished to an ESRD patient that is not for the treatment of ESRD
AZ	Physician providing a service in a dental health professional shortage area for the purpose of an electronic health record incentive payment
BA	Item furnished in conjunction with parenteral enteral nutrition (PEN) services
BL	Special acquisition of blood and blood products
BO	Orally administered nutrition, not by feeding tube
BP	The beneficiary has been informed of the purchase and rental options and has elected to purchase the item
BR	The beneficiary has been informed of the purchase and rental options and has elected to rent the item

Modifier	Description
BU	The beneficiary has been informed of the purchase and rental options and after 30 days has not informed the supplier of his/her decision
CA	Procedure payable only in the inpatient setting when performed emergently on an outpatient who expires prior to admission
CB	Service ordered by a renal dialysis facility (RDF) physician as part of the ESRD beneficiary's dialysis benefit, is not part of the composite rate, and is separately reimbursable
CC	Procedure code change (use 'CC' when the procedure code submitted was changed either for administrative reasons or because an incorrect code was filed)
CD	AMCC test has been ordered by an ESRD facility or MCP physician that is part of the composite rate and is not separately billable
CE	AMCC test has been ordered by an ESRD facility or MCP physician that is a composite rate test but is beyond the normal frequency covered under the rate and is separately reimbursable based on medical necessity
CF	AMCC test has been ordered by an ESRD facility or MCP physician that is not part of the composite rate and is separately billable
CG	Policy criteria applied
CH	0 percent impaired, limited or restricted
CI	At least 1 percent but less than 20 percent impaired, limited or restricted
CJ	At least 20 percent but less than 40 percent impaired, limited or restricted
CK	At least 40 percent but less than 60 percent impaired, limited or restricted
CL	At least 60 percent but less than 80 percent impaired, limited or restricted
CM	At least 80 percent but less than 100 percent impaired, limited or restricted
CN	100 percent impaired, limited or restricted
CO	Outpatient occupational therapy services furnished in whole or in part by an occupational therapy assistant
CQ	Outpatient physical therapy services furnished in whole or in part by a physical therapist assistant
CR	Catastrophe/disaster related
CS	Cost-sharing waived for specified COVID-19 testing-related services that result in and order for or administration of a COVID-19 test and/or used for cost-sharing waived preventive services furnished via telehealth in rural health clinics and federally qualified health centers during the COVID-19 public health emergency

Terminology

Terminology	Explanation
Abdominal aorta	Largest artery that supplies the abdominal cavity, part of the aorta and a continuation of the descending aorta from the thorax; it divides further into iliac arteries, which supply blood to the abdominal wall, pelvis, and lower extremities.
Aberrant vessel	Blood vessel having an unusual origin or course.
Ablation	A surgical technique that destroys abnormal tissue, removes a body part, or destroys its function using heat, electric current, or by freezing.
Abscess	Sac or pocket formed due to the accumulation of purulent material, or pus, in the soft tissues.
Acute	A medical condition or injury of sudden onset, sometimes severe in nature, and typically lasts a short period of time; opposite of chronic.
Acute respiratory distress syndrome, or ARDS	A buildup of fluid, or an inflammation, in the lungs due to trauma or disease.
Acyanotic	Absence of the bluish tint associated with deoxygenated blood.
Adam's apple	The lump that sticks out in the front of a person's neck formed by the large cartilage of the throat.
Adhesions	Fibrous bands, which typically result from inflammation or injury during surgery that form between tissues and organs; they may be thought of as internal scar tissue.
Adrenal glands	A small endocrine gland found on top of the kidney that secretes hormones into the blood.
Adrenal veins	Veins branching off of the left or right adrenal gland.
Adventitia	The outermost layer or covering of a vessel or organ.
Air cuff	An inflatable band worn around an extremity to regulate the flow of blood.
Algorithm	A specific set of step-by-step calculations using defined inputs at each step to produce a useful output.
Alkanes and non methylated alkanes	Oxidative stress products that are excreted in the breath; hydrocarbon compounds identified by the chemical compound nomenclature C4-C20.
Allograft	A tissue graft harvested from one person for another; donors include cadavers and living individuals related or unrelated to the recipient; also called allogeneic graft and homograft.
Ambulatory blood pressure monitoring	Automatic recording of blood pressure readings over a 24 hour period while a patient participates in activities of daily living, away from the provider's office.
Amniotic cavity	Sac filled with amniotic fluid where the fetus develops.
Amplification	Making more copies of desired gene for study by processes such as polymerase chain reaction, called PCR, or transcription of DNA to RNA and reverse transcription from RNA to make an additional copy of the DNA.
Amplitude	Measure of change in a periodic variable with time.
Analysis	A systematic examination and evaluation of data or information.
Anastomosis	Connection between two structures, anatomically or surgically created, such as between two blood vessels after resection of a part; types of anastomoses include end to side and side to side.
Aneurysm	Weakness in the wall of a blood vessel or wall of a ventricle of the heart, typically the left ventricle, causing the wall to balloon out; sometimes requiring surgical excision or repair to prevent rupture.
Angina pectoris	Episodes of severe chest pain due to insufficient blood supply within the heart.
Angioaccess	A group of procedures in which a vascular provider places a catheter, shunt, or graft in the patient's arm or neck for easy access the blood vessels to perform procedures such as hemodialysis.
Angiocatheter	A catheter inserted into a blood vessel, typically to instill fluids or medicine, to withdraw blood, or to deliver instruments or devices such as a pressure transducer or balloon.
Angiogram	A general term for radiographic images of arteries or veins following the administration of a contrast material; more specific terms include aortogram, arteriogram, and venogram.
Angiography	A medical imaging technique in which the provider injects a dye into blood vessels and uses plain X-rays, computed tomography, or magnetic resonance imaging to visualize the inside, or lumen, of the vessels; more specific terms include arteriography when performed on the arteries or venography when performed on the veins; angiography can also be used to study blood supply to organs such as the heart, kidneys, and liver.

Terminology	Explanation
Angioplasty	Surgical removal of plaque from a vessel, e.g., with a laser, or widening of the vessel lumen, the open area of a vessel, such as when a provider expands a balloon inside the vessel to compress the plaque against the vessel walls; the provider may place a stent to keep the vessel open.
Angioscope	A catheter with a camera mounted on its one end that a provider uses to examine the interior of a blood vessel.
Annulus	A ring shaped structure; the aortic annulus attaches the aortic root to the left ventricle and the leaflets of the valve, which are flaps or cusps, attach to the annulus.
Anomalous coronary artery arising from the pulmonary artery	A congenital heart defect, also called Bland White Garland syndrome, where the left coronary artery is affected; an anomalous right coronary is less common.
Anomalous or anomaly	Not normal, irregular, typically used to refer to congenital birth defects.
Antegrade	That which occurs in the normal direction or flow.
Anterior	Closer to the front of the body or a structure.
Anterior tibial artery	Smaller anterior artery that passes between the tibia and fibula bones of the lower leg, descends in the anterior portion of the leg, and continues beyond the ankle joint into the foot as the dorsalis pedis artery.
Antibiotic	Substance that inhibits infection.
Anticoagulant	A drug that causes a delay in clotting of blood, thus preventing the chances of myocardial infarction, stroke, blood clot in the brain, or deep vein thrombosis.
Antimicrobial agent	Substance that repels or destroys microorganisms.
Antitachycardia	Measures taken to prevent or reverse tachycardia, an abnormal rapid heart rhythm.
Anuloplasty	Surgical repair of a dilated anulus to prevent a leaking heart valve; reducing the diameter of the anulus by encircling it with a band of sutures or a synthetic ring or band.
Anuloplasty ring	A band of sutures or a synthetic ring or band a provider places to reduce the size of the anulus.
Anulus	A ring; a dense ring of fibers surrounding the openings or ostia between the atria and ventricles.
Aorta	The main artery that comes out of the top of the left ventricle and carries oxygenated blood to the body; it consists of an ascending and descending aorta which serve the upper and lower parts of the body respectively.
Aortic arch	As the aorta comes out of the heart, it rises and then curves down, forming an arch.
Aortic arch hypoplasia	Underdevelopment of the aortic arch; it prevents the left ventricle from pumping adequate amounts of blood to the body.
Aortic dissection	Blood coursing within the layers of the aorta's walls.
Aortic outflow obstruction	Blockage of blood flow out of the ventricle into the aorta.
Aortic root	The base of the aorta where it joins the left ventricle and encircles the aortic valve, the valve between the left ventricle and the aorta, which keeps blood from flowing backward into the left ventricle.
Aortic root pressure	The pressure at the beginning of the aorta that helps drive coronary blood flow.
Aortic sinus, or sinus of Valsalva	A widened space in the ascending aorta above the aortic valve; the coronary arteries take off from two of these sinuses.
Aortic valve	The valve between the left ventricle and the aorta; it keeps blood from flowing backward into the left ventricle, the pumping chamber of the heart; it consists of three semilunar leaflets or cusps, so called because of their crescent moon shape.
Aortic valve regurgitation	Condition in which the heart's aortic valve doesn't tightly close. Blood pumped from the heart leaks back into it.
Aortocarotid	Pertaining to the aorta and the carotid vessels located in the neck.
Aortocoronary saphenous vein graft	A bypass graft in a coronary artery using a segment of saphenous vein from the lower extremities.
Aortocoronary venous bypass graft	A bypass graft in a coronary artery using a segment of a vein.
Aortography	The radiological supervision and interpretation of the aorta, following the administration of a dye.

Join the biggest team in healthcare information management.

As an AAPC member, you'll be part of a global network of 250,000+ career learners and working professionals. Our credentials are among the most highly sought after in the industry — in part because AAPC members are trained for more than passing an exam. They are trained to succeed on the job from day one.

"If you want to rise in the ranks of the Healthcare business portion of the medical field, I highly suggest that you become a member of AAPC and obtain your certifications through them. They will help you to advance and open the door of opportunity for you."

– Latisha Booker, CPC

"APPC has not only provided me with the opportunity to earn multiple credentials but has also opened important doors for me in my career."

– Mary Arnold, CPC, CPMA, CRC, RMA, HR-C

"While taking classes, I was introduced to AAPC. I became a member to help boost my career, and more than 20 years later, I'm still an AAPC member."

– Bradley Miller, CPC, CRC, CDEO

Whether you're just getting started or a seasoned pro, AAPC membership will give you the support, training, tools, and resources to help you launch and advance your career successfully,

Learn more at **aapc.com**

AAPC