

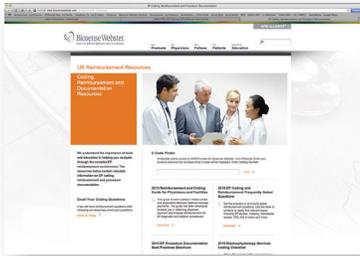
2022 EP REIMBURSEMENT AND CODING GUIDE

Physicians and Facilities



RESOURCES TO ASSIST YOU WITH THE REIMBURSEMENT PROCESS

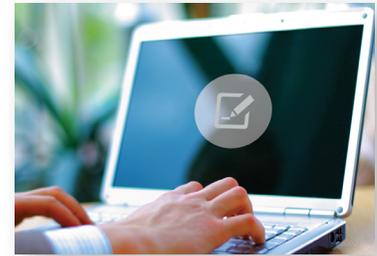
Resources to assist you with the reimbursement process



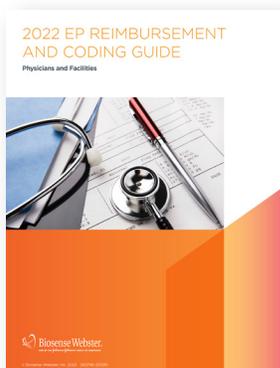
Online HCPCS C-Code Finder



Coding & Reimbursement Webinars



Access to Biosense Webster, Inc. Reimbursement Support Services



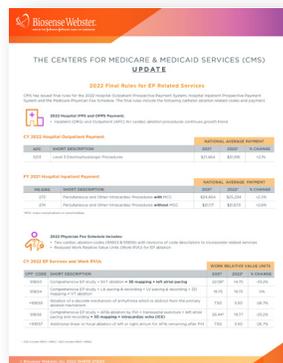
Reimbursement and Coding Guide



Coding and Reimbursement Frequently Asked Questions



Electrophysiology Coding Checklist



2022 CMS Final Rules for EP Related Services



EP Procedure Documentation Best Practices

FOR ADDITIONAL QUESTIONS OR INFORMATION CONTACT:

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The information is provided to assist you in understanding the reimbursement process. It is intended to assist providers in accurately obtaining reimbursement for health care services. It is not intended to increase or maximize reimbursement by any payer. We strongly suggest that you consult your payer organization with regard to local reimbursement policies. The information contained in this document is provided for information purposes only and represents no statement, promise or guarantee by Biosense Webster, Inc. concerning levels of reimbursement, payment or charge. Similarly, all CPT® & HCPCS codes are supplied for information purposes only and represent no statement; promise or guarantee by Biosense Webster, Inc. that these codes will be appropriate or that reimbursement will be made.

ELECTROPHYSIOLOGY DIAGNOSTIC, ABLATION, AND INTRACARDIAC ECHOCARDIOGRAPHY GUIDED TRANSCATHETER PROCEDURES

This guide has been developed to assist you in obtaining physician payment and hospital reimbursement for:

- Electrophysiology (EP) diagnostic and ablation procedures
- The acquisition of radiological images
- EP and Cardiology procedures that may utilize intracardiac echocardiography (ICE)

These procedures may be a covered service if they meet all of the requirements established by Medicare and private payers. It is essential that each claim be coded properly and supported with appropriate documentation in the medical record.

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PHYSICIAN SERVICES

CPT® codes and Medicare Physician Fee Schedule values for Electrophysiology Diagnostic, Ablation, and Intracardiac Echocardiography Guided Transcatheter Procedures are indicated below. Please note that when reporting ablation therapy codes (93653-93657), the single site electrophysiology studies (93600-93603, 93610, 93612, 93618) and the comprehensive electrophysiology study codes (93619, 93620) are included and may not be reported separately. Other procedures are also bundled into some ablation codes, but should be reported separately with others: review the descriptors and parenthetical notes carefully. Moderate sedation is no longer bundled into CPT® codes as of 2017, and so may be reported separately, although Medicare and some other payers only reimburse the first 15 minutes in a facility setting. There were several revisions to code descriptors and parenthetical notes for ablation procedures in 2022, bundling additional services.

Relative value units (RVUs) are the numeric values assigned to each CPT® code in the Medicare Physician Fee Schedule. The RVU assigned is based on the following: physician work, practice expense (PE), and malpractice liability (MP). The percentage of the total RVU for each of these components is not a fixed ratio, and will vary according to the specific resources relevant for different types of procedures. Each of these components are adjusted geographically, and then the sum multiplied by a conversion factor (dollar-per-unit) to arrive at the final allowed amount.

Intracardiac Electrophysiological Procedures

CPT® Code ²	Description	2022 Work RVU	2022 PE RVU	2022 MP RVU	2022 Total RVU	2022 National Average Medicare Reimbursement ³
+ 93462	Left heart catheterization by transeptal puncture through intact septum or by transapical puncture	3.73	1.57	0.87	6.17	\$214
⊙ 93600-26	Bundle of His recording	2.12	0.93	0.40	3.45	\$119
⊙ 93602-26	Intra-atrial recording	2.12	0.88	0.40	3.40	\$118
⊙ 93603-26	Right ventricular recording	2.12	0.88	0.40	3.40	\$118
+ 93609-26	Intraventricular and/or intra-atrial mapping of tachycardia site(s) with catheter manipulation to record from multiple sites to identify origin of tachycardia	4.99	2.15	0.96	8.10	\$280
⊙ 93610-26	Intra-atrial pacing	3.02	1.21	0.57	4.80	\$166
⊙ 93612-26	Intraventricular pacing	3.02	1.18	0.56	4.76	\$165
+ 93613	Intracardiac electrophysiologic three-dimensional mapping	5.23	2.25	1.20	8.68	\$300
⊙ 93615-26	Esophageal recording of atrial electrogram with or without ventricular electrogram(s);	0.74	0.33	0.02	1.09	\$38
⊙ 93616-26	...with pacing	1.24	0.43	0.04	1.71	\$59
⊙ 93618-26	Induction of arrhythmia by electrical pacing	4.00	1.65	0.76	6.41	\$222
93619-26	Comprehensive electrophysiologic evaluation with right atrial pacing and recording, right ventricular pacing and recording, His bundle recording, including insertion and repositioning of multiple electrode catheters, without induction or attempted induction of arrhythmia	7.06	2.99	1.34	11.39	\$394
93620-26	Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of arrhythmia; with right atrial pacing and recording, right ventricular pacing and recording, His bundle recording	11.32	4.81	2.18	18.31	\$634

The THERMOCOOL SMARTTOUCH® SF Catheter is indicated for the treatment of drug refractory recurrent symptomatic paroxysmal atrial fibrillation (AF) and for drug refractory recurrent symptomatic persistent AF (continuous AF > 7 days but < 1 year), refractory or intolerant to at least 1 Class I or III AAD, when used with the CARTO® 3 System.

CPT [®] Code ²	Description	2022 Work RVU	2022 PE RVU	2022 MP RVU	2022 Total RVU	2022 National Average Medicare Reimbursement ³
+ 93621-26	...with left atrial pacing and recording from coronary sinus or left atrium	1.50	0.99	0.28	2.77	\$96
+ 93622-26	...with left ventricular pacing and recording	3.10	1.32	0.60	5.02	\$174
+ 93623-26	Programmed stimulation and pacing after intravenous drug infusion	0.98	1.83	0.20	3.01	\$104
93624-26	Electrophysiologic follow-up study with pacing and recording to test effectiveness of therapy, including induction or attempted induction of arrhythmia	4.55	1.57	0.90	7.02	\$243
93631-26	Intra-operative epicardial and endocardial pacing and mapping to localize the site of tachycardia or zone of slow conduction for surgical correction	7.59	2.50	1.49	11.58	\$401
93640-26	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;	3.26	1.34	0.62	5.22	\$181
93641-26	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; with testing of single or dual chamber pacing cardioverter-defibrillator pulse generator	5.67	2.34	1.09	9.10	\$315
93642-26	Electrophysiologic evaluation of single or dual chamber transvenous pacing cardioverter-defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing and pacing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)	4.63	1.91	0.90	7.44	\$257
93644-26	Electrophysiologic evaluation of subcutaneous implantable defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)	3.04	1.05	0.10	4.19	\$145
93650	Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block, with or without temporary pacemaker placement	10.24	4.72	2.36	17.32	\$599
▲ 93653	Comprehensive electrophysiologic evaluation with insertion and repositioning of multiple electrode catheters, induction or attempted induction of an arrhythmia with right atrial pacing and recording, and catheter ablation of arrhythmogenic focus, including intracardiac electrophysiologic 3-dimensional mapping, right ventricular pacing and recording, left atrial pacing and recording from coronary sinus or left atrium, and His bundle recording, when performed; with treatment of supraventricular tachycardia by ablation of fast or slow atrioventricular pathway, accessory atrioventricular connection, cavo-tricuspid isthmus or other single atrial focus or source of atrial re-entry	14.75	6.33	3.41	24.49	\$848

The THERMOCOOL SMARTTOUCH[®] SF Catheter is indicated for the treatment of drug refractory recurrent symptomatic paroxysmal atrial fibrillation (AF) and for drug refractory recurrent symptomatic persistent AF (continuous AF > 7 days but < 1 year), refractory or intolerant to at least 1 Class I or III AAD, when used with the CARTO[®] 3 System. In the US, 4mm Catheters (NAVISTAR[®] Catheter, CELSIUS[®] Catheter, EZ STEER[®] Catheter (NAV and Non-NAV)) have a "General Indication" for creation of endocardial lesions in patients 4 years of age and older. This "General Indication" includes treatment of Ventricular Tachycardia.

CPT ¹ Code ²	Description	2022 Work RVU	2022 PE RVU	2022 MP RVU	2022 Total RVU	2022 National Average Medicare Reimbursement ³
▲ 93654*	... with treatment of ventricular tachycardia or focus of ventricular ectopy including left ventricular pacing and recording, when performed	19.75	8.44	4.57	32.76	\$1,134
+ 93655	Intracardiac catheter ablation of a discrete mechanism of arrhythmia which is distinct from the primary ablated mechanism, including repeat diagnostic maneuvers, to treat a spontaneous or induced arrhythmia	5.50	2.37	1.28	9.15	\$317
Δ 93656	Comprehensive electrophysiologic evaluation including transseptal catheterizations, insertion and repositioning of multiple electrode catheters with intracardiac catheter ablation of atrial fibrillation by pulmonary vein isolation, including intracardiac electrophysiologic 3-dimensional mapping, intracardiac echocardiography including imaging supervision and interpretation, induction or attempted induction of an arrhythmia including left or right atrial pacing/ recording, right ventricular pacing/recording, and His bundle recording, when performed	19.77	8.51	4.58	32.86	\$1,137
+ 93657	Additional linear or focal intracardiac catheter ablation of the left or right atrium for treatment of atrial fibrillation remaining after completion of pulmonary vein isolation	5.50	2.36	1.28	9.14	\$316
93660	Evaluation of cardiovascular function with tilt table	1.89	0.73	0.07	2.69	\$93
+ 93662-26	Intracardiac echocardiography during therapeutic/ diagnostic intervention, including imaging supervision and interpretation	1.44	1.18	0.05	2.67	\$92

Septal Defect and Other Transcatheter Procedures

93580	Percutaneous transcatheter closure of congenital interatrial communication (ie Fontan fenestration, atrial septal defect) with implant	17.97	6.60	3.97	28.54	\$988
93581	Percutaneous transcatheter closure of a congenital ventricular septal defect with implant	24.39	8.76	5.72	38.87	\$1,345
93582	Percutaneous transcatheter closure of patent ductus arteriosus	12.31	4.25	2.89	19.45	\$673
93583	Percutaneous transcatheter septal reduction therapy (eg, alcohol septal ablation) including temporary pacemaker insertion when performed	13.75	4.81	3.16	21.72	\$752
93590	Percutaneous transcatheter closure of paravalvular leak; initial occlusion device, mitral valve	21.70	7.91	1.72	31.33	\$1,084
93591	Percutaneous transcatheter closure of paravalvular leak; initial occlusion device, aortic valve	17.97	6.50	1.41	25.88	\$896
+ 93592	Percutaneous transcatheter closure of paravalvular leak; each additional occlusion device (List separately in addition to code for primary procedure)	8.00	2.77	0.65	11.42	\$395
33340	Percutaneous transcatheter closure of the left atrial appendage with endocardial implant, including fluoroscopy, transseptal puncture, catheter placement(s), left atrial angiography, left atrial appendage angiography, when performed, and radiological supervision and interpretation	14.00	5.90	3.23	23.13	\$800

Note: Code 93355 is intended for reporting with "structural" interventions. It is to be reported by a different physician other than the one performing the intervention, and coverage in conjunction with ablation procedures would be according to payor discretion.

CPT [®] Code ²	Description	2022 Work RVU	2022 PE RVU	2022 MP RVU	2022 Total RVU	2022 National Average Medicare Reimbursement ³
Image Acquisition Procedures						
93312-26	Echocardiography, transesophageal, real-time with image documentation (2D) (with or without M-mode recording); including probe placement, image acquisition, interpretation and report	2.30	0.75	0.09	3.14	\$109
93315-26	Transesophageal echocardiography for congenital cardiac anomalies; image including probe placement, image acquisition, interpretation and report	2.69	0.91	0.09	3.69	\$128
#+• 93319	3D echocardiography imaging and postprocessing during transesophageal echocardiography, or during transthoracic echocardiography for congenital cardiac anomalies, for the assessment of cardiac structure(s) (eg, cardiac chambers and valves, left atrial appendage, interatrial septum, interventricular septum) and function, when performed	0.50	0.18	0.05	0.73	\$25
+ 93320-26	Doppler echocardiography; pulsed wave and/or continuous wave with spectral display; complete	0.38	0.13	0.01	0.52	\$18
+ 93321-26	. . . follow-up or limited study	0.15	0.05	0.01	0.21	\$7
+ 93325-26	Doppler echocardiography color flow velocity mapping	0.07	0.02	0.00	0.09	\$3
+93355	Echocardiography, transesophageal (TEE) for guidance of a transcatheter intracardiac or great vessel(s) structural intervention(s) (peri- and intra-procedural), real-time image acquisition and documentation, guidance with quantitative measurements, probe manipulation, interpretation, and report, including diagnostic TEE and, when performed, administration of ultrasound contrast, Doppler, color flow, and 3D	4.66	1.63	0.33	6.62	\$229

Moderate Sedation

99151	Moderate sedation services provided by the same physician or other qualified health care professional performing the diagnostic or therapeutic service that the sedation supports, requiring the presence of an independent trained observer to assist in the monitoring of the patient's level of consciousness and physiological status; initial 15 minutes of intraservice time, patient younger than 5 years of age	0.50	0.19	0.04	0.73	\$25
99152	initial 15 minutes of intraservice time, patient age 5 years or older	0.25	0.08	0.04	0.37	\$13
+ 99153	each additional 15 minutes intraservice time (List separately in addition to code for primary service)	0.00	NA	0.02	NA	\$0
99155	Moderate sedation services provided by a physician or other qualified health care professional other than the physician or other qualified health care professional performing the diagnostic or therapeutic service that the sedation supports; initial 15 minutes of intraservice time, patient younger than 5 years of age	1.90	0.32	0.21	2.43	\$84
99156	initial 15 minutes of intraservice time, patient age 5 years or older	1.65	0.40	0.18	2.23	\$77
+ 99157	each additional 15 minutes intraservice time (List separately in addition to code for primary service)	1.25	0.46	0.11	1.82	\$63

Note: Code 93355 is intended for reporting with "structural" interventions. It is to be reported by a different physician other than the one performing the intervention, and coverage in conjunction with ablation procedures would be according to payor discretion.

OUTPATIENT FACILITY SERVICES

Ambulatory Payment Classification (APC) is the Medicare reimbursement methodology under the Hospital Outpatient Prospective Payment System (HOPPS). Procedures which require similar resources are assigned to an APC category for a lump sum payment. Services are reported with CPT® codes. Multiple outpatient APCs may potentially be paid to a facility on a single case, although some CPT® codes may be packaged, ancillary, or combined into a comprehensive APC.

Ambulatory Payment Classification (APC)	Description	Status Indicator	2022 National Average Medicare Reimbursement ⁶
5211	Level 1 Electrophysiologic Procedures	J1	\$1,138
5212	Level 2 Electrophysiologic Procedures	J1	\$6,208
5213	Level 3 Electrophysiologic Procedures	J1	\$21,916
5723	Level 3 Diagnostic Tests and Related Services	S	\$499
5194	Level 4 Endovascular Procedures	J1	\$16,402
5524	Level 4 Imaging without Contrast	S	\$493

- 93462 is assigned a status of 'N', packaged procedure; no separate APC reimbursement will be made for transseptal puncture. Although 93462 may continue to be reported in addition to SVT (93653) or VT (93654) ablation codes for tracking, it is bundled into the atrial fibrillation code (93656) by CPT definition.
- 93603, 93615, 93616, and 92618 are assigned to APC 5211. These CPT® codes all have a status indicator of J1, so only the primary J1 procedure will be reimbursed and the others bundled.
- Beginning in 2019, certain combinations of services became eligible for a complexity adjustment. For electrophysiology, if either 93613 or 93650 is reported in conjunction with 93620, then the case will be assigned to APC 5213, rather than 5212.
- 93609 and 93613 (mapping), 93621, 93622, 93623, 93655, 93657 (add-on codes), 93320, 93321, and 93325 (Doppler echocardiography), and 93662 (intracardiac echocardiography) are not assigned to an APC, but are ancillary to the primary procedures. Status indicator is "N" on these procedures; no separate APC payment is made.
- 93600, 93602, 93610, 93612, 93619, 93620, 93624, and 93650 are assigned to APC 5212 when performed as a stand-alone procedure, which also have a status indicator of J1.
- 93653, 93654, and 93656 are assigned to APC 5213, as these CPT® codes include both a diagnostic study and ablation in a single code. These also have a status of J1, and will typically be the primary code in a case.
- 93660 (Tilt table evaluation) is assigned to APC 5723, with a status indicator of S.
- Transcatheter closure of septal defects or patent ductus arteriosus (93580, 93581, and 93582), as well as transcatheter closure of paravalvular leaks (93590 and 93591) are assigned to APC 5194, which has status J1. Code 93592, as an add-on code, has status N, packaged.
- Septal reduction therapy (93583) and left atrial appendage exclusion (33340) are identified as status "C", Inpatient Only, and are not approved to be performed in an outpatient setting.
- 93312 (TEE) and 93315 (TEE for congenital cardiac anomalies), are reassigned to APC 5524, which has a status indicator of "S", indicating separate reimbursement, not subject to multiple procedure discount. However, they are bundled when reported with a procedure of status J1, which is most of the electrophysiology procedures. Code 93355 (TEE guidance for intracardiac or great vessel(s) structural intervention(s)) has a status of N, packaged procedure; no separate APC reimbursement will be made.

[†]THERMOCOOL® Navigation Catheters are approved for drug refractory recurrent symptomatic paroxysmal atrial fibrillation, when used with CARTO® Systems (excluding NAVISTAR® RMT THERMOCOOL® Catheter).

The THERMOCOOL SMARTTOUCH® SF Catheter is indicated for the treatment of drug refractory recurrent symptomatic paroxysmal atrial fibrillation (AF) and for drug refractory recurrent symptomatic persistent AF (continuous AF > 7 days but < 1 year), refractory or intolerant to at least 1 Class I or III AAD, when used with the CARTO® 3 System.

INPATIENT FACILITY SERVICES

Medicare reimburses inpatient hospital services under the Inpatient Prospective Payment System (IPPS), which bases payment on diagnosis-related groups (DRGs), now MS-DRGs (Medicare Severity Diagnosis Related Group). The FY 2022 MS-DRG Grouper will generally assign each Medicare patient discharge to MS-DRG 274 when ICD-10-PCS electrophysiology diagnostic and ablation procedure codes 4A0234Z, 02K83ZZ and/or 02583ZZ are used to describe the principal procedure that the patient received during their hospital stay. Patient discharges that have a MCC will generally assign to MS-DRG 273. MS-DRGs for other transcatheter procedures which may involve intracardiac echocardiography are also listed below.

MS-DRG	Description	2022 National Average Medicare Reimbursement ⁵
EP / Ablation and/or ASD Closure		
273	Percutaneous and Other Intracardiac Procedures with MCC	\$25,234
274	Percutaneous and Other Intracardiac Procedures without MCC	\$21,673
VSD Closure		
228	Other Cardiothoracic Procedures with MCC	\$35,150
229	Other Cardiothoracic Procedures without MCC	\$22,692
Other Surgical Occlusion (PDA Closure)		
270	Other Major Cardiovascular Procedures with MCC	\$34,205
271	Other Major Cardiovascular Procedures with CC	\$23,511
272	Other Major Cardiovascular Procedures without CC/MCC	\$17,727

PROCEDURE CODES

The following ICD-10-PCS procedure codes generally describe intracardiac electrophysiology procedures, as well as other transcatheter procedures which may involve intracardiac ultrasound.

Ablation procedures are coded to “Destruction of applicable body part or portion thereof”. However, there is also a body part “Conduction Mechanism” in this section which may capture a wide range of sites as the most specific body part available, since the actual target of the ablation is typically the arrhythmogenic focus.

ICD-10-PCS Tx Code	Description
Intracardiac Electrophysiological Procedures	
4A0234Z	Measurement and monitoring, cardiac, percutaneous, electrical activity
4A023PZ	Measurement and monitoring, cardiac, percutaneous, action currents
02K80ZZ	Map conduction mechanism, open
02K83ZZ	Map conduction mechanism, percutaneous
02K84ZZ	Map conduction mechanism, percutaneous endoscopic
B244ZZ3	Imaging, ultrasonography, right heart, no contrast, intravascular
B245ZZ3	Imaging, ultrasonography, left heart, no contrast, intravascular
B246ZZ3	Imaging, ultrasonography, right and left heart, no contrast, intravascular
B24DZZ3	Imaging, ultrasonography, pediatric heart, no contrast, intravascular
02JA3ZZ	Inspection, heart, percutaneous
02563ZZ	Destruction, percutaneous, right atrium
02573ZZ	Destruction, percutaneous, left atrium
025K3ZZ	Destruction, percutaneous, right ventricle
025L3ZZ	Destruction, percutaneous, left ventricle
02583ZZ	Destruction, percutaneous, conduction mechanism
02553ZZ	Destruction, percutaneous, atrial septum
025M3ZZ	Destruction, percutaneous, ventricular septum
025S3ZZ	Destruction, percutaneous, left pulmonary vein
025T3ZZ	Destruction, percutaneous, right pulmonary vein

ICD-10-PCS**Tx Code Description****Transthoracic and Transesophageal Echocardiography**

B244ZZZ	Imaging, ultrasonography, right heart, no contrast
B245ZZZ	Imaging, ultrasonography, left heart, no contrast
B246ZZZ	Imaging, ultrasonography, right and left heart, no contrast
B24DZZZ	Imaging, ultrasonography, pediatric heart, no contrast
B244ZZ4	Imaging, ultrasonography, right heart, no contrast, transesophageal
B245ZZ4	Imaging, ultrasonography, left heart, no contrast, transesophageal
B246ZZ4	Imaging, ultrasonography, right and left heart, no contrast, transesophageal
B24DZZ4	Imaging, ultrasonography, pediatric heart, no contrast, transesophageal

Other Transcatheter Procedures Involving Intracardiac Ultrasound

O2U53JZ	Supplement, atrial septum, percutaneous, with synthetic substitute
O2UM3JZ	Supplement, ventricular septum, percutaneous, with synthetic substitute
O2Q53ZZ	Repair, atrial septum, percutaneous
O2W53JZ	Revision, atrial septum, percutaneous, synthetic substitute
O2WM3JZ	Revision, ventricular septum, percutaneous, synthetic substitute
O2573ZK	Destruction, left atrium, percutaneous, left atrial appendage
O2L73ZK	Occlusion, left atrium, percutaneous, left atrial appendage, no device
O2L73CK	Occlusion, left atrium, percutaneous, left atrial appendage, with extraluminal device
O2L73DK	Occlusion, left atrium, percutaneous, left atrial appendage, with intraluminal device
O2LR3DT	Occlusion, percutaneous, pulmonary artery, ductus arteriosus, with intraluminal device
O2LR3ZT	Occlusion, percutaneous, pulmonary artery, ductus arteriosus, with no device

When an Ultrasound Catheter is used during percutaneous procedures, the MS-DRG category will be determined by the principal procedure – such as ablation procedures (ICD-10-PCS code O2583ZZ) or percutaneous atrial septal defect (ASD) closure (ICD-10-PCS code O2U53JZ). The FY2020 MS-DRG Grouper will generally assign each Medicare patient discharge to MS-DRG 274 when one of these ICD-10-PCS procedure codes are used to describe the principal procedure that the patient received during their hospital stay. Patient discharges that have an MCC will generally be assigned to MS-DRG 273.

When an Ultrasound Catheter is used in conjunction with the principal procedure of percutaneous ventricular septal defect (VSD) closure (O2UM3JZ), or an atrial septal defect repair (O2Q53ZZ), the FY2021 MS-DRG Grouper will generally assign each Medicare patient discharge to one of the MS-DRGs in the range 228 – 230. When the principal procedure is occlusion of patent ductus arteriosus (O2LR3DT, O2LR3ZT), the discharge will be assigned to an MS-DRG in the range 270-272.

DIAGNOSIS CODES

For any patient service or procedure, a diagnosis code(s) will also be reported to indicate the condition for which the patient requires medical care.

Physician and hospital outpatient claims report, as the first-listed diagnosis, the chief complaint. The **chief complaint** can be defined as the ‘presenting problem’ for which the patient presents to the hospital or other site for care. For inpatient services, hospitals identify a principal diagnosis. The **principal diagnosis** is defined in the Uniform Hospital Discharge Data Set (UHDDS)⁸ as “that condition established after study to be chiefly responsible for occasioning the admission of the patient to the hospital for care.”

The following ICD-10-CM diagnosis codes are generally relevant to intracardiac electrophysiology procedures, septal defect repairs, and other transcatheter interventions. More detailed and precise information in the record is often necessary to accurately assign codes in ICD-10-CM/ICD-10-PCS. The ICD-10 updates for the Fiscal Year (FY) 2022 reflect continued refinement of the new system, with hundreds of new and revised codes. CMS and other reviewers may use coding specificity as the reason for an audit or a denial of a reviewed claim.

ICD-10-CM Dx Code	Description
Cardiac Dysrhythmias	
I47.0*	Re-entry ventricular arrhythmia
I47.1	Supraventricular tachycardia [SVT, AVNRT, junctional, nodal]
I47.2*	Ventricular tachycardia
I47.9	Paroxysmal tachycardia, unspecified
I48.0	Paroxysmal atrial fibrillation
I48.11	Longstanding persistent atrial fibrillation
I48.19	Other persistent atrial fibrillation
I48.20	Chronic atrial fibrillation, unspecified
I48.21	Permanent atrial fibrillation
I48.3	Typical atrial flutter
I48.4	Atypical atrial flutter
I48.91	Unspecified atrial fibrillation
I48.92	Unspecified 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
I49.40	Unspecified premature depolarization
I49.49	Other premature depolarization [Ectopic beats, Extrasystoles, Premature contractions]

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*THERMOCOOL® Navigation Catheters are indicated for the treatment of recurrent drug/device refractory sustained monomorphic ventricular tachycardia (VT) due to prior myocardial infarction (MI) in adults.

In the US, 4mm Catheters (NAVISTAR® Catheter, CELSIUS® Catheter, EZ STEER® Catheter (NAV and Non-NAV)) have a “General Indication” for creation of endocardial lesions in patients 4 years of age and older. This “General Indication” includes treatment of Ventricular Tachycardia.

ICD-10-CM Dx Code	Description
I49.5	Sick sinus syndrome [Tachycardia-bradycardia syndrome]
I49.8	Other specified cardiac arrhythmias
I49.9	Cardiac arrhythmia, unspecified
R00.0	Tachycardia, unspecified
R00.1	Bradycardia, unspecified
R00.2	Palpitations
R00.8	Other abnormalities of heart beat
R00.9	Unspecified abnormalities of heart beat

Conduction Disorders

I44.0	Atrioventricular block, first degree
I44.1	Atrioventricular block, second degree [AV, type I and II; Möbitz block, type I and II; Wenckebach's block]
I44.2	Atrioventricular block, complete [third degree block]
I44.30	Unspecified atrioventricular block
I44.39	Other atrioventricular block
I44.4	Left anterior fascicular block
I44.5	Left posterior fascicular block
I44.60	Unspecified fascicular block [Left bundle-branch hemiblock NOS]
I44.69	Other fascicular block
I44.7	Left bundle-branch block, unspecified
I45.0	Right fascicular block
I45.10	Unspecified right bundle-branch block
I45.19	Other right bundle-branch block
I45.2	Bifascicular block
I45.3	Trifascicular block
I45.4	Nonspecific intraventricular block [Bundle-branch block NOS]
I45.5	Other specified heart block [Sinoatrial block, Sinoauricular block]
I45.6	Pre-excitation syndrome [Accelerated AV conduction; Lown-Ganong-Levine syndrome; Wolff-Parkinson-White syndrome]
I45.81	Long QT syndrome
I45.89	Other specified conduction disorders [AV, interference, or isorhythmic dissociation]
I45.9	Conduction disorder, unspecified [Heart block NOS, Stokes-Adams syndrome]
Q24.6	Congenital heart block

The THERMOCOOL SMARTTOUCH® SF Catheter is indicated for the treatment of drug refractory recurrent symptomatic paroxysmal atrial fibrillation (AF) and for drug refractory recurrent symptomatic persistent AF (continuous AF > 7 days but < 1 year), refractory or intolerant to at least 1 Class I or III AAD, when used with the CARTO® 3 System.

ICD-10-CM Dx Code	Description
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Cardiac Arrest

I46.2	Cardiac arrest due to underlying cardiac condition
I46.8	Cardiac arrest due to other underlying condition
I46.9	Cardiac arrest, cause unspecified

Septal Defects, Congenital Anomalies, and Cardiomyopathy

I42.0	Dilated cardiomyopathy
I42.1	Obstructive hypertrophic cardiomyopathy
I42.2	Other hypertrophic cardiomyopathy
I51.0	Cardiac septal defect, acquired
I23.1	Atrial septal defect as current complication following acute myocardial infarction
I23.2	Ventricular septal defect as current complication following acute myocardial infarction
Q21.0	Ventricular septal defect
Q21.1	Atrial septal defect
Q21.2	Atrioventricular septal defect
Q21.4	Aortopulmonary septal defect
Q21.8	Other congenital malformations of cardiac septa
Q21.9	Congenital malformation of cardiac septum, unspecified
Q25.0	Patent ductus arteriosus
T82.03XA	Leakage of heart valve prosthesis, initial encounter

HCPCS CODES FOR BIOSENSE WEBSTER, INC. PRODUCTS

Medicare uses C-codes to track device cost information for future APC rate-setting purposes. No additional payment will be provided to the facility. All appropriate C-codes should be added to the hospital's chargemaster to report device costs used in the outpatient setting. CMS will return a hospital claim if the appropriate tracking code is not identified on the claim when a device-dependent procedure is performed.

HCPCS CODES FOR BIOSENSE WEBSTER, INC. PRODUCTS

HCPCS Code	Category Long Descriptor	BWI Product Covered
C1730	Catheter, electrophysiology, diagnostic, other than 3D mapping (19 or fewer electrodes)	WEBSTER® Quadrapolar, Hexapolar, Octapolar, Decapolar, and WEBSTER® CS Bi-Directional and Unidirectional Deflectable Diagnostic Catheters WEBSTER® HIS Catheters LASSO® Decapolar Catheters LASSO® 2515 Variable Decapolar Catheters
C1731	Catheter, electrophysiology, diagnostic, other than 3D mapping (20 or more electrodes)	HALO® and ISMUS® Twenty Electrode Catheters CRISTACATH® Catheters WEBSTER® Duo-Decapolar Twenty Electrode Catheters 20-Pole Special Catheters LASSO® Twenty Electrode Catheters LASSO® 2515 Variable Twenty Electrode Catheters
C1732	Catheter, electrophysiology, diagnostic/ablation, 3D or vector mapping	THERMOCOOL SMARTTOUCH® SF Catheters THERMOCOOL SMARTTOUCH® Catheters LASSO® NAV Catheters LASSO® 2515 NAV Variable Decapolar Catheters LASSO® 2515 NAV Variable Twenty Electrode Catheters LASSO® NAV eco Catheters LASSO® 2515 NAV Variable eco Catheters NAVISTAR® 4mm Catheters PENTARAY® NAV and PENTARAY® NAV eco Catheters NAVISTAR® DS Catheters NAVISTAR® RMT 4mm and 8mm Steerable Catheters THERMOCOOL® SF NAV Catheters ESOPHASTAR® Esophageal Mapping Catheters DECANAV® Catheters OCTARAY™ Mapping Catheter
C1733	Catheter, electrophysiology, diagnostic/ablation, other than 3D or vector mapping, other than cool-tip	CELSIUS® 8mm Catheters CELSIUS® 4mm Catheters CELSIUS® RMT 4mm Steerable Catheters CELSIUS FLTR® Catheters THERMOCOOL® Catheters CELSIUS® THERMOCOOL® RMT Catheters THERMOCOOL® SF Catheters
C2630	Catheter, electrophysiology, diagnostic/ablation, other than 3D or vector mapping, cool-tip	CELSIUS® THERMOCOOL® Catheters CELSIUS® THERMOCOOL® RMT Catheters THERMOCOOL® SF Catheters
C1759	Catheter, intracardiac echocardiography	ACUSON AcuNav™ Ultrasound Catheters SOUNDSTAR® 3D Ultrasound Catheters SOUNDSTAR® eco Catheters NuVision™ ICE Catheter
C1893	Introducer/sheath, guiding, intracardiac electrophysiological, fixed-curve, other than peel-away	PREFACE® Sheaths
C1766	Introducer/sheath, guiding, intracardiac electrophysiological, steerable, other than peel-away	MOBICATH® Bi-Directional Sheaths CARTO VIZIGO™ Bi-Directional Guiding Sheaths

Please note that there is no C-code for the REFSTAR™ PLUS Catheter with QWIKPATCH® External Reference Patch, COOLFLOW® Pump Tubing, PERRY® Catheter, or HeartSpan® Transseptal Needle, MOBICATH® Sheath as they are considered by CMS to be accessory items. Not all devices will have an associated C-code; if none is defined, then the facility will assign its own internal charge code associated with an appropriate revenue code.

ONLINE C-CODE FINDER | www.biosensewebster.com/reimbursement

2022 Healthcare Common Procedure Coding System (HCPCS), Centers for Medicare and Medicaid Services.
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Caution: US law restricts this device to sale by or on the order of a physician.
Important information: Prior to use, refer to the instructions for use supplied with this device for indications, contraindications, side effects, warnings and precautions.

NOTES

- Not all codes provided are applicable for the recommended uses of Biosense Webster, Inc.'s products. The most appropriate code for the patient's clinical presentation must be selected.
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- The Medicare Physician Fee Schedule (MPFS) payment amounts indicated are based upon data elements published by the Centers for Medicare and Medicaid Services (CMS) in the Final Rule [CMS-1751-F] on 11/2/2021, and published in the Federal Register on 11/19/2021, with a conversion factor of \$34.6062 as amended in the Protecting Medicare and American Farmers from Sequester Cuts Act passed December 10, 2021. CMS may make adjustments to any or all of the data inputs from time to time.
- 2022 ICD-10-CM and ICD-10-PCS files are published online at the CMS website.
- The FY 2022 MS-DRG payment amounts indicated are estimates only based upon data elements derived from various CMS sources. MS-DRG national average payments were calculated with a base rate of \$6,594.24 using the national adjusted operating standardized amounts and the capital standard federal payment rate as issued in the Medicare Inpatient Prospective Payment System Final Rule issued by CMS on 8/2/2021 [CMS-1752-F] and published in the Federal Register (Vol. 86, Issue 154) on 8/13/2021, and Correcting Amendment issued on 10/19/2021 [CMS-1752-F2] and published in the Federal Register (Vol. 86, Issue 200) on 10/20/2021; Tables 1A and 1D, Table 5, and assume that all hospitals are receiving the full 2.0% updates for successful quality reporting and EHR meaningful use. Actual payment may vary based on various hospital-specific factors not reflected in the source data. Some providers may be paid based on a methodology which differs from the standard MS-DRG calculation reflected in the amount shown (i.e., rural referral centers, hospitals in the state of Maryland). Actual payment may also vary based on adjustments that CMS may make from time to time.
- The APC payment amounts indicated are estimates only based upon data elements derived from various CMS sources. These sources include the Medicare Hospital Outpatient Prospective Payment System Final Rule [CMS-1753 -FC] issued by CMS on 11/2/2021 and published in the Federal Register on 11/16/2021. Actual payment may vary based on various hospital-specific factors not reflected in the source data.
- Status Indicators identify a payment mechanism under the Ambulatory payment classifications. Definitions for status indicators are derived from Table D1 of the Medicare Hospital Outpatient Prospective Payment System Final Rule [CMS-1753-FC] issued by CMS on 11/2/2021 and published in the Federal Register on 11/16/2021.

Indicator	Item/Code/Service	OPPS Payment Status
N	Items and Services Packaged into APC Rates	Paid under OPPS; payment is packaged into payment for other services. Therefore, there is no separate APC payment.
J1	Hospital Part B services paid through a comprehensive APC	Paid under OPPS; all covered Part B services on the claim are packaged with the primary "J1" service for the claim, except services with OPPS status indicator of "F", "G", "H", "L" and "U"; ambulance services; diagnostic and screening mammography; all preventive services; and certain Part B inpatient services.
S	Procedure or Service, Not Discounted When Multiple	Paid under OPPS; separate APC payment.
T	Procedure or Service, Multiple Procedure Reduction Applies	Paid under OPPS; separate APC payment.

- The UHDDS definitions are used by acute care short-term hospitals to report inpatient data elements in a standardized manner, and initially only applied to inpatients in acute, short-term, general hospitals. These data elements and their definitions can be found in the July 31, 1985, Federal Register (Vol. 50, No, 147), pp. 31038-40. Since that time the application of the UHDDS definitions has been expanded to include all non-outpatient settings (acute care, short term, long term care and psychiatric hospitals; home health agencies; rehab facilities; nursing homes, etc).

CPT® Symbols:

○ Procedure is identified as modifier 51 exempt. These procedures are typically performed with another procedure, but may be a stand-alone procedure and not always performed in conjunction with other specified procedures. Multiple procedure payment reduction does not apply to these codes. Note that other invasive electrophysiology procedure codes may be subject to a multiple procedure payment reduction (eg, payment may be decreased by 50% when multiple procedures are performed during the same day or session), dependent upon payer policy.

+ Add-on code. (List separately in addition to code for primary procedure) Add-on codes are always performed in addition to the primary service or procedure and must never be reported as a stand-alone code. All add-on codes are exempt from multiple procedure payment reduction.

• New procedure numbers added to the CPT® codebook are identified with the symbol • placed before the code number.

▲ The triangle indicates a revision to the CPT® code descriptor.

The information is provided to assist you in understanding the reimbursement process. It is intended to assist providers in accurately obtaining reimbursement for health care services. It is not intended to increase or maximize reimbursement by any payer. We strongly suggest that you consult your payer organization with regard to local reimbursement policies. The information contained in this document is provided for information purposes only and represents no statement, promise or guarantee by Biosense Webster, Inc. concerning levels of reimbursement, payment or charge. Similarly, all CPT® & HCPCS codes are supplied for information purposes only and represent no statement, promise or guarantee by Biosense Webster, Inc. that these codes will be appropriate or that reimbursement will be made.

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