

CMS Manual System	Department of Health & Human Services (DHHS)
Pub 100-04 Medicare Claims Processing	Centers for Medicare & Medicaid Services (CMS)
Transmittal 3054	Date: August 29, 2014
	Change Request 8803

SUBJECT: Ventricular Assist Devices for Bridge-to-Transplant and Destination Therapy

I. SUMMARY OF CHANGES: This Change Request (CR) is effective for claims with dates of service on and after October 30, 2013; contractors shall pay claims for Ventricular Assist Devices as destination therapy using the criteria in Pub. 100-03, part 1, section 20.9.1, and Pub. 100-04, Chapter 32, sec. 320.

EFFECTIVE DATE: October 30, 2013

**Unless otherwise specified, the effective date is the date of service.*

IMPLEMENTATION DATE: September 30, 2014

Disclaimer for manual changes only: The revision date and transmittal number apply only to red italicized material. Any other material was previously published and remains unchanged. However, if this revision contains a table of contents, you will receive the new/revised information only, and not the entire table of contents.

II. CHANGES IN MANUAL INSTRUCTIONS: (N/A if manual is not updated)

R=REVISED, N=NEW, D=DELETED-Only One Per Row.

R/N/D	CHAPTER / SECTION / SUBSECTION / TITLE
D	3/90.2.1/Artifiical Hearts and Related Devices
R	32/Table of Contents
N	32/320/Artificial Hearts and Related Devices
N	32/320.1/Coding Requirements for Furnished Before May 1, 2008
N	32/320.2/Coding Requirements for Furnished After May 1, 2008
N	32/320.3/ Ventricular Assist Devices
N	32/320.3.1/Postcardiotomy
N	32/320.3.2/Bridge-To -Transplantation (BTT)
N	32/320.3.3/Destination Therapy (DT)
N	32/320.3.4/ Other
N	32/320.4/ Replacement Accessories and Supplies for External Ventricular Assist Devices or Any Ventricular Assist Device (VAD)

III. FUNDING:

For Medicare Administrative Contractors (MACs):

The Medicare Administrative Contractor is hereby advised that this constitutes technical direction as defined in your contract. CMS does not construe this as a change to the MAC statement of Work. The contractor is not obliged to incur costs in excess of the amounts allotted in your contract unless and until specifically authorized by the Contracting Officer. If the contractor considers anything provided, as described above, to be outside the current scope of work, the contractor shall withhold performance on the part(s) in question and immediately notify the Contracting Officer, in writing or by e-mail, and request formal directions regarding continued performance requirements.

IV. ATTACHMENTS:

Business Requirements

Manual Instruction

Attachment - Business Requirements

Pub. 100-04	Transmittal: 3054	Date: August 29, 2014	Change Request: 8803
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SUBJECT: Ventricular Assist Devices for Bridge-to-Transplant and Destination Therapy

EFFECTIVE DATE: October 30, 2013

**Unless otherwise specified, the effective date is the date of service.*

IMPLEMENTATION DATE: September 30, 2014

I. GENERAL INFORMATION

A. Background:

Medicare covers ventricular assist devices (VADs) for three general indications: postcardiotomy, bridge-to-transplantation (BTT) and destination therapy (DT). Postcardiotomy refers to the placement of VADs following open-heart surgery. Coverage for BTT is restricted to patients listed for heart transplantation. Coverage for DT is restricted to patients who are not candidates for heart transplantation, require mechanical cardiac support, and who meet specific clinical criteria. In addition, VADs implanted as DT are only covered when implanted in a facility that is approved by CMS to provide this procedure.

CMS is modifying the criteria for coverage of VADs as BTT and is modifying the facility criteria for coverage as DT as stated in the policy section below.

B. Policy: Effective for claims with dates of service on and after October 30, 2013, CMS has determined that the evidence is adequate to conclude that VAD implantation is reasonable and necessary with the following modifications to our current policy:

- VADs for BTT: CMS clearly identifies that the patient must be active on the waitlist maintained by the Organ Procurement and Transplantation Network and remove the general time requirement that patients receive a transplant as soon as medically reasonable.
- VADs for DT: CMS expands the credentialing requirement to allow credentialing by other organizations approved by Medicare and include requirements for a multidisciplinary team. CMS removes mandatory participation in the INTERMACS registry, but encourages facilities to track patient outcomes.
- CMS states that this policy does not address coverage of VADs for right ventricular support, biventricular support, use in patients under the age of 18, or use in patients with complex congenital heart disease and that coverage for items and services under section 1862(a)(1)(A) in these situations will be made by local Medicare Administrative Contractors (MACs) within their respective jurisdictions.
- CMS renumbers the VAD-related policies into a sub-section of section 20.9 (Artificial Hearts and Related Devices) of the NCD Manual. The sub-section (20.9.1) will be titled Ventricular Assist Devices.

II. BUSINESS REQUIREMENTS TABLE

"Shall" denotes a mandatory requirement, and "should" denotes an optional requirement.

Number	Requirement	Responsibility								
		A/B MAC			D M E	Shared-System Maintainers				Other
		A	B	H H H		F M V C	I C M W	S S S F		
8803 - 04.1	Effective for claims with dates of service on and after October 30, 2013, contractors shall pay claims for VADs as destination therapy using the criteria in Pub. 100-03, part 1, section 20.9.1, and Pub. 100-04, chapter 32, section 320.	X	X							

III. PROVIDER EDUCATION TABLE

Number	Requirement	Responsibility				
		A/B MAC			D M E	C E D I
		A	B	H H H		
8803 - 04.2	MLN Article : A provider education article related to this instruction will be available at http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNMattersArticles/ shortly after the CR is released. You will receive notification of the article release via the established "MLN Matters" listserv. Contractors shall post this article, or a direct link to this article, on their Web sites and include information about it in a listserv message within one week of the availability of the provider education article. In addition, the provider education article shall be included in the contractor's next regularly scheduled bulletin. Contractors are free to supplement MLN Matters articles with localized information that would benefit their provider community in billing and administering the Medicare program correctly.	X	X			

IV. SUPPORTING INFORMATION

Section A: Recommendations and supporting information associated with listed requirements: N/A

"Should" denotes a recommendation.

X-Ref Requirement Number	Recommendations or other supporting information:
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Section B: All other recommendations and supporting information: N/A

V. CONTACTS

Pre-Implementation Contact(s): Roya Lotfi, 410-786-4072 or roya.lotfi@cms.hhs.gov (Coverage) , Patricia Brocato-Simons, 410-786-0261 or patricia.brocato-simons@cms.hhs.gov (Coverage) , Wanda Belle, 410-786-7491 or wanda.belle@cms.hhs.gov (Coverage) , Fred Rooke, 404-562-7205 or Fred.Rooke@cms.hhs.gov (Institutional Claims Processing) , Wendy Knarr, 410-786-0843 or wendy.knarr@cms.hhs.gov (Supplier Claims Processing)

Post-Implementation Contact(s): Contact your Contracting Officer's Representative (COR)

VI. FUNDING

Section A: For Medicare Administrative Contractors (MACs):

The Medicare Administrative Contractor is hereby advised that this constitutes technical direction as defined in your contract. CMS does not construe this as a change to the MAC Statement of Work. The contractor is not obligated to incur costs in excess of the amounts allotted in your contract unless and until specifically authorized by the Contracting Officer. If the contractor considers anything provided, as described above, to be outside the current scope of work, the contractor shall withhold performance on the part(s) in question and immediately notify the Contracting Officer, in writing or by e-mail, and request formal directions regarding continued performance requirements.

ATTACHMENTS: 0

Medicare Claims Processing Manual

Chapter 32 – Billing Requirements for Special Services

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320 - Artificial Hearts and Related Devices

320.1 – Coding Requirements for Artificial Hearts Furnished Before May 1, 2008

320.2 – Coding Requirements for Artificial Hearts Furnished After May 1, 2008

320.3 – Ventricular Assist Devices (VADs)

320.3.1 – Postcardiotomy

320.3.2 – Bridge- to-Transplantation (BTT)

320.3.3 – Destination Therapy (DT)

320.3.4 – Other

320.3.5 – Replacement Accessories and Supplies for External VADs or Any VAD

320 - Artificial Hearts and Related Devices

(Rev. 3054, Issued: 08-29-14, Effective: 10-30-13, Implementation: 09-30-14)

320.1 – Coding Requirements for Artificial Hearts Furnished Before May 1, 2008

(Rev. 3054, Issued: 08-29-14, Effective: 10-30-13, Implementation: 09-30-14)

Effective for discharges before May 1, 2008, Medicare does not cover the use of artificial hearts, either as a permanent replacement for a human heart or as a temporary life-support system until a human heart becomes available for transplant (often referred to a "bridge to transplant").

320.2 – Coding Requirements for Artificial Hearts Furnished On or After May 1, 2008

(Rev. 3054, Issued: 08-29-14, Effective: 10-30-13, Implementation: 09-30-14)

Effective for discharges on or after May 1, 2008, the use of artificial hearts will be covered by Medicare under Coverage with Evidence Development (CED) when beneficiaries are enrolled in a clinical study that meets all of the criteria listed in IOM Pub. 100-03, Medicare NCD Manual, section 20.9.

Claims Coding

For claims with dates of service on or after May 1, 2008, artificial hearts in the context of an approved clinical study for a Category A IDE, refer to section 69 in this manual for more detail on CED billing. Appropriate ICD-10 diagnosis and procedure codes are included below:

ICD-10 Diagnosis Code	Definition	Discharges Effective
<i>I09.81</i>	<i>Rheumatic heart failure</i>	<i>On or After ICD-10 Implementation</i>
<i>I11.0</i>	<i>Hypertensive heart disease with heart failure</i>	
<i>I13.0</i>	<i>Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease</i>	
<i>I13.2</i>	<i>Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease</i>	
<i>I20.0</i>	<i>Unstable angina</i>	
<i>I21.01</i>	<i>ST elevation (STEMI) myocardial infarction involving left main coronary artery</i>	
<i>I21.02</i>	<i>ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery</i>	
<i>I21.09</i>	<i>ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall</i>	
<i>I21.11</i>	<i>ST elevation (STEMI) myocardial infarction involving right coronary artery</i>	
<i>I21.19</i>	<i>ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall</i>	
<i>I21.21</i>	<i>ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery</i>	
<i>I21.29</i>	<i>ST elevation (STEMI) myocardial infarction involving other sites</i>	
<i>I21.3</i>	<i>ST elevation (STEMI) myocardial infarction of unspecified site</i>	
<i>I21.4</i>	<i>Non-ST elevation (NSTEMI) myocardial infarction</i>	
<i>I22.0</i>	<i>Subsequent ST elevation (STEMI) myocardial infarction of anterior wall</i>	
<i>I22.1</i>	<i>Subsequent ST elevation (STEMI) myocardial infarction of inferior wall</i>	
<i>I22.2</i>	<i>Subsequent non-ST elevation (NSTEMI) myocardial infarction</i>	

<i>I22.8</i>	<i>Subsequent ST elevation (STEMI) myocardial infarction of other sites</i>
<i>I22.9</i>	<i>Subsequent ST elevation (STEMI) myocardial infarction of unspecified site</i>
<i>I24.0</i>	<i>Acute coronary thrombosis not resulting in myocardial infarction</i>
<i>I24.1</i>	<i>Dressler's syndrome</i>
<i>I24.8</i>	<i>Other forms of acute ischemic heart disease</i>
<i>I24.9</i>	<i>Acute ischemic heart disease, unspecified</i>
<i>I25.10</i>	<i>Atherosclerotic heart disease of native coronary artery without angina pectoris</i>
<i>I25.110</i>	<i>Atherosclerotic heart disease of native coronary artery with unstable angina pectoris</i>
<i>I25.111</i>	<i>Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm</i>
<i>I25.118</i>	<i>Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris</i>
<i>I25.119</i>	<i>Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris</i>
<i>I25.5</i>	<i>Ischemic cardiomyopathy</i>
<i>I25.6</i>	<i>Silent myocardial ischemia</i>
<i>I25.700</i>	<i>Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris</i>
<i>I25.701</i>	<i>Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm</i>
<i>I25.708</i>	<i>Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris</i>
<i>I25.709</i>	<i>Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris</i>
<i>I25.710</i>	<i>Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris</i>
<i>I25.711</i>	<i>Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm</i>
<i>I25.718</i>	<i>Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris</i>
<i>I25.719</i>	<i>Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris</i>
<i>I25.720</i>	<i>Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris</i>
<i>I25.721</i>	<i>Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm</i>
<i>I25.728</i>	<i>Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris</i>
<i>I25.729</i>	<i>Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris</i>
<i>I25.730</i>	<i>Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris</i>
<i>I25.731</i>	<i>Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm</i>
<i>I25.738</i>	<i>Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris</i>
<i>I25.739</i>	<i>Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris</i>
<i>I25.750</i>	<i>Atherosclerosis of native coronary artery of transplanted heart with unstable angina</i>
<i>I25.751</i>	<i>Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm</i>

I25.758	<i>Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris</i>
I25.759	<i>Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris</i>
I25.760	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina</i>
I25.761	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm</i>
I25.768	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris</i>
I25.769	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris</i>
I25.790	<i>Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris</i>
I25.791	<i>Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm</i>
I25.798	<i>Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris</i>
I25.799	<i>Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris</i>
I25.810	<i>Atherosclerosis of coronary artery bypass graft(s) without angina pectoris</i>
I25.811	<i>Atherosclerosis of native coronary artery of transplanted heart without angina pectoris</i>
I25.812	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris</i>
I25.89	<i>Other forms of chronic ischemic heart disease</i>
I25.9	<i>Chronic ischemic heart disease, unspecified</i>
I34.0	<i>Nonrheumatic mitral (valve) insufficiency</i>
I34.1	<i>Nonrheumatic mitral (valve) prolapse</i>
I34.2	<i>Nonrheumatic mitral (valve) stenosis</i>
I34.8	<i>Other nonrheumatic mitral valve disorders</i>
I34.9	<i>Nonrheumatic mitral valve disorder, unspecified</i>
I35.0	<i>Nonrheumatic aortic (valve) stenosis</i>
I35.1	<i>Nonrheumatic aortic (valve) insufficiency</i>
I35.2	<i>Nonrheumatic aortic (valve) stenosis with insufficiency</i>
I35.8	<i>Other nonrheumatic aortic valve disorders</i>
I35.9	<i>Nonrheumatic aortic valve disorder, unspecified</i>
I36.0	<i>Nonrheumatic tricuspid (valve) stenosis</i>
I36.1	<i>Nonrheumatic tricuspid (valve) insufficiency</i>
I36.2	<i>Nonrheumatic tricuspid (valve) stenosis with insufficiency</i>
I36.8	<i>Other nonrheumatic tricuspid valve disorders</i>
I36.9	<i>Nonrheumatic tricuspid valve disorder, unspecified</i>
I37.0	<i>Nonrheumatic pulmonary valve stenosis</i>
I37.1	<i>Nonrheumatic pulmonary valve insufficiency</i>
I37.2	<i>Nonrheumatic pulmonary valve stenosis with insufficiency</i>
I37.8	<i>Other nonrheumatic pulmonary valve disorders</i>
I37.9	<i>Nonrheumatic pulmonary valve disorder, unspecified</i>
I38	<i>Endocarditis, valve unspecified</i>
I39	<i>Endocarditis and heart valve disorders in diseases classified elsewhere</i>
I42.0	<i>Dilated cardiomyopathy</i>
I42.2	<i>Other hypertrophic cardiomyopathy</i>
I42.3	<i>Endomyocardial (eosinophilic) disease</i>
I42.4	<i>Endocardial fibroelastosis</i>

I42.5	<i>Other restrictive cardiomyopathy</i>
I42.6	<i>Alcoholic cardiomyopathy</i>
I42.7	<i>Cardiomyopathy due to drug and external agent</i>
I42.8	<i>Other cardiomyopathies</i>
I42.9	<i>Cardiomyopathy, unspecified</i>
I43	<i>Cardiomyopathy in diseases classified elsewhere</i>
I46.2	<i>Cardiac arrest due to underlying cardiac condition</i>
I46.8	<i>Cardiac arrest due to other underlying condition</i>
I46.9	<i>Cardiac arrest, cause unspecified</i>
I47.0	<i>Re-entry ventricular arrhythmia</i>
I47.1	<i>Supraventricular tachycardia</i>
I47.2	<i>Ventricular tachycardia</i>
I47.9	<i>Paroxysmal tachycardia, unspecified</i>
I48.0	<i>Atrial fibrillation</i>
I48.1	<i>Atrial flutter</i>
I49.01	<i>Ventricular fibrillation</i>
I49.02	<i>Ventricular flutter</i>
I49.1	<i>Atrial premature depolarization</i>
I49.2	<i>Junctional premature depolarization</i>
I49.3	<i>Ventricular premature depolarization</i>
I49.40	<i>Unspecified premature depolarization</i>
I49.49	<i>Other premature depolarization</i>
I49.5	<i>Sick sinus syndrome</i>
I49.8	<i>Other specified cardiac arrhythmias</i>
I49.9	<i>Cardiac arrhythmia, unspecified</i>
I50.1	<i>Left ventricular failure</i>
I50.20	<i>Unspecified systolic (congestive) heart failure</i>
I50.21	<i>Acute systolic (congestive) heart failure</i>
I50.22	<i>Chronic systolic (congestive) heart failure</i>
I50.23	<i>Acute on chronic systolic (congestive) heart failure</i>
I50.30	<i>Unspecified diastolic (congestive) heart failure</i>
I50.31	<i>Acute diastolic (congestive) heart failure</i>
I50.32	<i>Chronic diastolic (congestive) heart failure</i>
I50.33	<i>Acute on chronic diastolic (congestive) heart failure</i>
I50.40	<i>Unspecified combined systolic (congestive) and diastolic (congestive) heart failure</i>
I50.41	<i>Acute combined systolic (congestive) and diastolic (congestive) heart failure</i>
I50.42	<i>Chronic combined systolic (congestive) and diastolic (congestive) heart failure</i>
I50.43	<i>Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure</i>
I50.9	<i>Heart failure, unspecified</i>
I51.4	<i>Myocarditis, unspecified</i>
I51.9	<i>Heart disease, unspecified</i>
I52	<i>Other heart disorders in diseases classified elsewhere</i>
I97.0	<i>Postcardiotomy syndrome</i>
I97.110	<i>Postprocedural cardiac insufficiency following cardiac surgery</i>
I97.111	<i>Postprocedural cardiac insufficiency following other surgery</i>
I97.120	<i>Postprocedural cardiac arrest following cardiac surgery</i>
I97.121	<i>Postprocedural cardiac arrest following other surgery</i>
I97.130	<i>Postprocedural heart failure following cardiac surgery</i>
I97.131	<i>Postprocedural heart failure following other surgery</i>
I97.190	<i>Other postprocedural cardiac functional disturbances following cardiac surgery</i>
I97.191	<i>Other postprocedural cardiac functional disturbances</i>

	<i>following other surgery</i>	
<i>I97.710</i>	<i>Intraoperative cardiac arrest during cardiac surgery</i>	
<i>I97.711</i>	<i>Intraoperative cardiac arrest during other surgery</i>	
<i>I97.790</i>	<i>Other intraoperative cardiac functional disturbances during cardiac surgery</i>	
<i>I97.791</i>	<i>Other intraoperative cardiac functional disturbances during other surgery</i>	
<i>I97.88</i>	<i>Other intraoperative complications of the circulatory system, not elsewhere classified</i>	
<i>I97.89</i>	<i>Other postprocedural complications and disorders of the circulatory system, not elsewhere classified</i>	
<i>M32.11</i>	<i>Endocarditis in systemic lupus erythematosus</i>	
<i>O90.89</i>	<i>Other complications of the puerperium, not elsewhere classified</i>	
<i>Q20.0</i>	<i>Common arterial trunk</i>	
<i>Q20.1</i>	<i>Double outlet right ventricle</i>	
<i>Q20.2</i>	<i>Double outlet left ventricle</i>	
<i>Q20.3</i>	<i>Discordant ventriculoarterial connection</i>	
<i>Q20.4</i>	<i>Double inlet ventricle</i>	
<i>Q20.5</i>	<i>Discordant atrioventricular connection</i>	
<i>Q20.6</i>	<i>Isomerism of atrial appendages</i>	
<i>Q20.8</i>	<i>Other congenital malformations of cardiac chambers and connections</i>	
<i>Q20.9</i>	<i>Congenital malformation of cardiac chambers and connections, unspecified</i>	
<i>Q21.0</i>	<i>Ventricular septal defect</i>	
<i>Q21.1</i>	<i>Atrial septal defect</i>	
<i>Q21.2</i>	<i>Atrioventricular septal defect</i>	
<i>Q21.3</i>	<i>Tetralogy of Fallot</i>	
<i>Q21.4</i>	<i>Aortopulmonary septal defect</i>	
<i>Q21.8</i>	<i>Other congenital malformations of cardiac septa</i>	
<i>Q21.9</i>	<i>Congenital malformation of cardiac septum, unspecified</i>	
<i>Q22.0</i>	<i>Pulmonary valve atresia</i>	
<i>Q22.1</i>	<i>Congenital pulmonary valve stenosis</i>	
<i>Q22.2</i>	<i>Congenital pulmonary valve insufficiency</i>	
<i>Q22.3</i>	<i>Other congenital malformations of pulmonary valve</i>	
<i>Q22.4</i>	<i>Congenital tricuspid stenosis</i>	
<i>Q22.5</i>	<i>Ebstein's anomaly</i>	
<i>Q22.6</i>	<i>Hypoplastic right heart syndrome</i>	
<i>Q22.8</i>	<i>Other congenital malformations of tricuspid valve</i>	
<i>Q22.9</i>	<i>Congenital malformation of tricuspid valve, unspecified</i>	
<i>Q23.0</i>	<i>Congenital stenosis of aortic valve</i>	
<i>Q23.1</i>	<i>Congenital insufficiency of aortic valve</i>	
<i>Q23.2</i>	<i>Congenital mitral stenosis</i>	
<i>Q23.3</i>	<i>Congenital mitral insufficiency</i>	
<i>Q23.4</i>	<i>Hypoplastic left heart syndrome</i>	
<i>Q23.8</i>	<i>Other congenital malformations of aortic and mitral valves</i>	
<i>Q23.9</i>	<i>Congenital malformation of aortic and mitral valves, unspecified</i>	
<i>Q24.0</i>	<i>Dextrocardia</i>	
<i>Q24.1</i>	<i>Levocardia</i>	
<i>Q24.2</i>	<i>Cor triatriatum</i>	
<i>Q24.3</i>	<i>Pulmonary infundibular stenosis</i>	
<i>Q24.4</i>	<i>Congenital subaortic stenosis</i>	
<i>Q24.5</i>	<i>Malformation of coronary vessels</i>	
<i>Q24.6</i>	<i>Congenital heart block</i>	

<i>Q24.8</i>	<i>Other specified congenital malformations of heart</i>	
<i>Q24.9</i>	<i>Congenital malformation of heart, unspecified</i>	
<i>R00.1</i>	<i>Bradycardia, unspecified</i>	
<i>R57.0</i>	<i>Cardiogenic shock</i>	
<i>T82.221A</i>	<i>Breakdown (mechanical) of biological heart valve graft, initial encounter</i>	
<i>T82.222A</i>	<i>Displacement of biological heart valve graft, initial encounter</i>	
<i>T82.223A</i>	<i>Leakage of biological heart valve graft, initial encounter</i>	
<i>T82.228A</i>	<i>Other mechanical complication of biological heart valve graft, initial encounter</i>	
<i>T82.512A</i>	<i>Breakdown (mechanical) of artificial heart, initial encounter</i>	
<i>T82.514A</i>	<i>Breakdown (mechanical) of infusion catheter, initial encounter</i>	
<i>T82.518A</i>	<i>Breakdown (mechanical) of other cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.519A</i>	<i>Breakdown (mechanical) of unspecified cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.522A</i>	<i>Displacement of artificial heart, initial encounter</i>	
<i>T82.524A</i>	<i>Displacement of infusion catheter, initial encounter</i>	
<i>T82.528A</i>	<i>Displacement of other cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.529A</i>	<i>Displacement of unspecified cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.532A</i>	<i>Leakage of artificial heart, initial encounter</i>	
<i>T82.534A</i>	<i>Leakage of infusion catheter, initial encounter</i>	
<i>T82.538A</i>	<i>Leakage of other cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.539A</i>	<i>Leakage of unspecified cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.592A</i>	<i>Other mechanical complication of artificial heart, initial encounter</i>	
<i>T82.594A</i>	<i>Other mechanical complication of infusion catheter, initial encounter</i>	
<i>T82.598A</i>	<i>Other mechanical complication of other cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.599A</i>	<i>Other mechanical complication of unspecified cardiac and vascular devices and implants, initial encounter</i>	
<i>T86.20</i>	<i>Unspecified complication of heart transplant</i>	
<i>T86.21</i>	<i>Heart transplant rejection</i>	
<i>T86.22</i>	<i>Heart transplant failure</i>	
<i>T86.23</i>	<i>Heart transplant infection</i>	
<i>T86.290</i>	<i>Cardiac allograft vasculopathy</i>	
<i>T86.298</i>	<i>Other complications of heart transplant</i>	
<i>T86.30</i>	<i>Unspecified complication of heart-lung transplant</i>	
<i>T86.31</i>	<i>Heart-lung transplant rejection</i>	
<i>T86.32</i>	<i>Heart-lung transplant failure</i>	
<i>T86.33</i>	<i>Heart-lung transplant infection</i>	
<i>T86.39</i>	<i>Other complications of heart-lung transplant</i>	
<i>Z48.21</i>	<i>Encounter for aftercare following heart transplant</i>	
<i>Z48.280</i>	<i>Encounter for aftercare following heart-lung transplant</i>	
<i>Z94.1</i>	<i>Heart transplant status</i>	
<i>Z94.3</i>	<i>Heart and lungs transplant status</i>	
<i>Z95.9</i>	<i>Presence of cardiac and vascular implant and graft, unspecified</i>	
<i>Q24.0</i>	<i>Dextrocardia</i>	
<i>Q24.1</i>	<i>Levocardia</i>	
<i>Q24.2</i>	<i>Cor triatriatum</i>	

<i>Q24.3</i>	<i>Pulmonary infundibular stenosis</i>
<i>Q24.4</i>	<i>Congenital subaortic stenosis</i>
<i>Q24.5</i>	<i>Malformation of coronary vessels</i>
<i>Q24.6</i>	<i>Congenital heart block</i>
<i>Q24.8</i>	<i>Other specified congenital malformations of heart</i>
<i>Q24.9</i>	<i>Congenital malformation of heart, unspecified</i>
<i>R00.1</i>	<i>Bradycardia, unspecified</i>
<i>R57.0</i>	<i>Cardiogenic shock</i>
<i>T82.221A</i>	<i>Breakdown (mechanical) of biological heart valve graft, initial encounter</i>
<i>T82.222A</i>	<i>Displacement of biological heart valve graft, initial encounter</i>
<i>T82.223A</i>	<i>Leakage of biological heart valve graft, initial encounter</i>
<i>T82.228A</i>	<i>Other mechanical complication of biological heart valve graft, initial encounter</i>
<i>T82.512A</i>	<i>Breakdown (mechanical) of artificial heart, initial encounter</i>
<i>T82.514A</i>	<i>Breakdown (mechanical) of infusion catheter, initial encounter</i>
<i>T82.518A</i>	<i>Breakdown (mechanical) of other cardiac and vascular devices and implants, initial encounter</i>
<i>T82.519A</i>	<i>Breakdown (mechanical) of unspecified cardiac and vascular devices and implants, initial encounter</i>
<i>T82.522A</i>	<i>Displacement of artificial heart, initial encounter</i>
<i>T82.524A</i>	<i>Displacement of infusion catheter, initial encounter</i>
<i>T82.528A</i>	<i>Displacement of other cardiac and vascular devices and implants, initial encounter</i>
<i>T82.529A</i>	<i>Displacement of unspecified cardiac and vascular devices and implants, initial encounter</i>
<i>T82.532A</i>	<i>Leakage of artificial heart, initial encounter</i>
<i>T82.534A</i>	<i>Leakage of infusion catheter, initial encounter</i>
<i>T82.538A</i>	<i>Leakage of other cardiac and vascular devices and implants, initial encounter</i>
<i>T82.539A</i>	<i>Leakage of unspecified cardiac and vascular devices and implants, initial encounter</i>
<i>T82.592A</i>	<i>Other mechanical complication of artificial heart, initial encounter</i>
<i>T82.594A</i>	<i>Other mechanical complication of infusion catheter, initial encounter</i>
<i>T82.598A</i>	<i>Other mechanical complication of other cardiac and vascular devices and implants, initial encounter</i>
<i>T82.599A</i>	<i>Other mechanical complication of unspecified cardiac and vascular devices and implants, initial encounter</i>
<i>T86.20</i>	<i>Unspecified complication of heart transplant</i>
<i>T86.21</i>	<i>Heart transplant rejection</i>
<i>T86.22</i>	<i>Heart transplant failure</i>
<i>T86.23</i>	<i>Heart transplant infection</i>
<i>T86.290</i>	<i>Cardiac allograft vasculopathy</i>
<i>T86.298</i>	<i>Other complications of heart transplant</i>
<i>T86.30</i>	<i>Unspecified complication of heart-lung transplant</i>
<i>T86.31</i>	<i>Heart-lung transplant rejection</i>
<i>T86.32</i>	<i>Heart-lung transplant failure</i>
<i>T86.33</i>	<i>Heart-lung transplant infection</i>
<i>T86.39</i>	<i>Other complications of heart-lung transplant</i>
<i>Z48.21</i>	<i>Encounter for aftercare following heart transplant</i>
<i>Z48.280</i>	<i>Encounter for aftercare following heart-lung transplant</i>
<i>Z94.1</i>	<i>Heart transplant status</i>
<i>Z94.3</i>	<i>Heart and lungs transplant status</i>
<i>Z95.9</i>	<i>Presence of cardiac and vascular implant and graft,</i>

	<i>unspecified</i>	
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ICD-10 Procedure Code	Definition	Discharges Effective
02RK0JZ	Replacement of Right Ventricle with Synthetic Substitute, Open Approach	On or After ICD-10 Implementation
02RL0JZ	Replacement of Left Ventricle with Synthetic Substitute, Open Approach	
02WA0JZ	Revision of Synthetic Substitute in Heart, Open Approach	

NOTE: Total artificial heart is reported with a “cluster” of 2 codes for open replacement with synthetic substitute of the right and left ventricles- 02RK0JZ + 02RL0JZ

320.3 – Ventricular Assist Devices (VADs)

(Rev. 3054, Issued: 08-29-14, Effective: 10-30- 13, Implementation: 09-30-14)

Medicare may cover a Ventricular Assist Device (VAD). A VAD is used to assist a damaged or weakened heart in pumping blood. VADs are used as a bridge to a heart transplant, for support of blood circulation post-cardiotomy or destination therapy. Refer to the IOM Pub. 100-03, NCD Manual, section 20.9.1 for coverage criteria.

320.3.1 – Post-cardiotomy

(Rev. 3054, Issued: 08-29-14, Effective: 10-30- 13, Implementation: 09-30-14)

Post-cardiotomy is the period following open-heart surgery. VADs used for support of blood circulation post-cardiotomy are covered only if they have received approval from the Food and Drug Administration (FDA) for that purpose, and the VADs are used according to the FDA-approved labeling instructions.

320.3.2 – Bridge- to -Transplantation (BTT)

(Rev. 3054, Issued: 08-29-14, Effective: 10-30- 13, Implementation: 09-30-14)

Coverage for BTT is restricted to patients listed for heart transplantation. The Centers for Medicare & Medicaid Services (CMS) has clearly identified that the patient must be active on the waitlist maintained by the Organ Procurement and Transplantation Network. CMS has also removed the general time requirement that patients receive a transplant as soon as medically reasonable.

320.3.3 – Destination Therapy (DT)

(Rev. 3054, Issued: 08-29-14, Effective: 10-30- 13, Implementation: 09-30-14)

Coverage for DT is restricted to patients who are not candidates for heart transplantation, require mechanical cardiac support, and who meet specific clinical criteria. In addition, VADs implanted as DT are covered when implanted in a facility that is approved by CMS to provide this procedure. CMS has expanded the credentialing requirement to allow credentialing by other organizations approved by Medicare and includes requirements for a multi-disciplinary team. CMS has removed mandatory participation in the INTERMACS registry, but encourages facilities to track patient outcomes.

320.3.4 – Other

(Rev. 3054, Issued: 08-29-14, Effective: 10-30- 13, Implementation: 09-30-14)

All other indications for the use of VADs not otherwise listed remain non-covered, except in the context of Category B investigational device exemption clinical trials (42 CFR 405) or as a routine cost in clinical trials defined under section 310.1 of the National Coverage Determinations (NCD) Manual.

Claims Coding

Appropriate ICD-10 diagnosis and procedure codes are included below:

ICD-10 Diagnosis Code	Definition	Discharges Effective
<i>I09.81</i>	<i>Rheumatic heart failure</i>	<i>On or After ICD-10 Implementation</i>
<i>I11.0</i>	<i>Hypertensive heart disease with heart failure</i>	
<i>I13.0</i>	<i>Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease</i>	
<i>I13.2</i>	<i>Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease</i>	
<i>I20.0</i>	<i>Unstable angina</i>	
<i>I21.01</i>	<i>ST elevation (STEMI) myocardial infarction involving left main coronary artery</i>	
<i>I21.02</i>	<i>ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery</i>	
<i>I21.09</i>	<i>ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall</i>	
<i>I21.11</i>	<i>ST elevation (STEMI) myocardial infarction involving right coronary artery</i>	
<i>I21.19</i>	<i>ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall</i>	
<i>I21.21</i>	<i>ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery</i>	
<i>I21.29</i>	<i>ST elevation (STEMI) myocardial infarction involving other sites</i>	
<i>I21.3</i>	<i>ST elevation (STEMI) myocardial infarction of unspecified site</i>	
<i>I21.4</i>	<i>Non-ST elevation (NSTEMI) myocardial infarction</i>	
<i>I22.0</i>	<i>Subsequent ST elevation (STEMI) myocardial infarction of anterior wall</i>	
<i>I22.1</i>	<i>Subsequent ST elevation (STEMI) myocardial infarction of inferior wall</i>	
<i>I22.2</i>	<i>Subsequent non-ST elevation (NSTEMI) myocardial infarction</i>	
<i>I22.8</i>	<i>Subsequent ST elevation (STEMI) myocardial infarction of other sites</i>	
<i>I22.9</i>	<i>Subsequent ST elevation (STEMI) myocardial infarction of unspecified site</i>	
<i>I24.0</i>	<i>Acute coronary thrombosis not resulting in myocardial infarction</i>	
<i>I24.1</i>	<i>Dressler's syndrome</i>	
<i>I24.8</i>	<i>Other forms of acute ischemic heart disease</i>	
<i>I24.9</i>	<i>Acute ischemic heart disease, unspecified</i>	
<i>I25.10</i>	<i>Atherosclerotic heart disease of native coronary artery without angina pectoris</i>	
<i>I25.110</i>	<i>Atherosclerotic heart disease of native coronary artery with unstable angina pectoris</i>	
<i>I25.111</i>	<i>Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm</i>	
<i>I25.118</i>	<i>Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris</i>	
<i>I25.119</i>	<i>Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris</i>	

<i>I25.5</i>	<i>Ischemic cardiomyopathy</i>
<i>I25.6</i>	<i>Silent myocardial ischemia</i>
<i>I25.700</i>	<i>Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris</i>
<i>I25.701</i>	<i>Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm</i>
<i>I25.708</i>	<i>Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris</i>
<i>I25.709</i>	<i>Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris</i>
<i>I25.710</i>	<i>Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris</i>
<i>I25.711</i>	<i>Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm</i>
<i>I25.718</i>	<i>Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris</i>
<i>I25.719</i>	<i>Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris</i>
<i>I25.720</i>	<i>Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris</i>
<i>I25.721</i>	<i>Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm</i>
<i>I25.728</i>	<i>Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris</i>
<i>I25.729</i>	<i>Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris</i>
<i>I25.730</i>	<i>Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris</i>
<i>I25.731</i>	<i>Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm</i>
<i>I25.738</i>	<i>Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris</i>
<i>I25.739</i>	<i>Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris</i>
<i>I25.750</i>	<i>Atherosclerosis of native coronary artery of transplanted heart with unstable angina</i>
<i>I25.751</i>	<i>Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm</i>
<i>I25.758</i>	<i>Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris</i>
<i>I25.759</i>	<i>Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris</i>
<i>I25.760</i>	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina</i>
<i>I25.761</i>	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm</i>
<i>I25.768</i>	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris</i>
<i>I25.769</i>	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris</i>
<i>I25.790</i>	<i>Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris</i>
<i>I25.791</i>	<i>Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm</i>
<i>I25.798</i>	<i>Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris</i>

<i>I25.799</i>	<i>Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris</i>
<i>I25.810</i>	<i>Atherosclerosis of coronary artery bypass graft(s) without angina pectoris</i>
<i>I25.811</i>	<i>Atherosclerosis of native coronary artery of transplanted heart without angina pectoris</i>
<i>I25.812</i>	<i>Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris</i>
<i>I25.89</i>	<i>Other forms of chronic ischemic heart disease</i>
<i>I25.9</i>	<i>Chronic ischemic heart disease, unspecified</i>
<i>I34.0</i>	<i>Nonrheumatic mitral (valve) insufficiency</i>
<i>I34.1</i>	<i>Nonrheumatic mitral (valve) prolapse</i>
<i>I34.2</i>	<i>Nonrheumatic mitral (valve) stenosis</i>
<i>I34.8</i>	<i>Other nonrheumatic mitral valve disorders</i>
<i>I34.9</i>	<i>Nonrheumatic mitral valve disorder, unspecified</i>
<i>I35.0</i>	<i>Nonrheumatic aortic (valve) stenosis</i>
<i>I35.1</i>	<i>Nonrheumatic aortic (valve) insufficiency</i>
<i>I35.2</i>	<i>Nonrheumatic aortic (valve) stenosis with insufficiency</i>
<i>I35.8</i>	<i>Other nonrheumatic aortic valve disorders</i>
<i>I35.9</i>	<i>Nonrheumatic aortic valve disorder, unspecified</i>
<i>I36.0</i>	<i>Nonrheumatic tricuspid (valve) stenosis</i>
<i>I36.1</i>	<i>Nonrheumatic tricuspid (valve) insufficiency</i>
<i>I36.2</i>	<i>Nonrheumatic tricuspid (valve) stenosis with insufficiency</i>
<i>I36.8</i>	<i>Other nonrheumatic tricuspid valve disorders</i>
<i>I36.9</i>	<i>Nonrheumatic tricuspid valve disorder, unspecified</i>
<i>I37.0</i>	<i>Nonrheumatic pulmonary valve stenosis</i>
<i>I37.1</i>	<i>Nonrheumatic pulmonary valve insufficiency</i>
<i>I37.2</i>	<i>Nonrheumatic pulmonary valve stenosis with insufficiency</i>
<i>I37.8</i>	<i>Other nonrheumatic pulmonary valve disorders</i>
<i>I37.9</i>	<i>Nonrheumatic pulmonary valve disorder, unspecified</i>
<i>I38</i>	<i>Endocarditis, valve unspecified</i>
<i>I39</i>	<i>Endocarditis and heart valve disorders in diseases classified elsewhere</i>
<i>I42.0</i>	<i>Dilated cardiomyopathy</i>
<i>I42.2</i>	<i>Other hypertrophic cardiomyopathy</i>
<i>I42.3</i>	<i>Endomyocardial (eosinophilic) disease</i>
<i>I42.4</i>	<i>Endocardial fibroelastosis</i>
<i>I42.5</i>	<i>Other restrictive cardiomyopathy</i>
<i>I42.6</i>	<i>Alcoholic cardiomyopathy</i>
<i>I42.7</i>	<i>Cardiomyopathy due to drug and external agent</i>
<i>I42.8</i>	<i>Other cardiomyopathies</i>
<i>I42.9</i>	<i>Cardiomyopathy, unspecified</i>
<i>I43</i>	<i>Cardiomyopathy in diseases classified elsewhere</i>
<i>I46.2</i>	<i>Cardiac arrest due to underlying cardiac condition</i>
<i>I46.8</i>	<i>Cardiac arrest due to other underlying condition</i>
<i>I46.9</i>	<i>Cardiac arrest, cause unspecified</i>
<i>I47.0</i>	<i>Re-entry ventricular arrhythmia</i>
<i>I47.1</i>	<i>Supraventricular tachycardia</i>
<i>I47.2</i>	<i>Ventricular tachycardia</i>
<i>I47.9</i>	<i>Paroxysmal tachycardia, unspecified</i>
<i>I48.0</i>	<i>Atrial fibrillation</i>
<i>I48.1</i>	<i>Atrial flutter</i>
<i>I49.01</i>	<i>Ventricular fibrillation</i>
<i>I49.02</i>	<i>Ventricular flutter</i>
<i>I49.1</i>	<i>Atrial premature depolarization</i>
<i>I49.2</i>	<i>Junctional premature depolarization</i>

<i>I49.3</i>	<i>Ventricular premature depolarization</i>
<i>I49.40</i>	<i>Unspecified premature depolarization</i>
<i>I49.49</i>	<i>Other premature depolarization</i>
<i>I49.5</i>	<i>Sick sinus syndrome</i>
<i>I49.8</i>	<i>Other specified cardiac arrhythmias</i>
<i>I49.9</i>	<i>Cardiac arrhythmia, unspecified</i>
<i>I50.1</i>	<i>Left ventricular failure</i>
<i>I50.20</i>	<i>Unspecified systolic (congestive) heart failure</i>
<i>I50.21</i>	<i>Acute systolic (congestive) heart failure</i>
<i>I50.22</i>	<i>Chronic systolic (congestive) heart failure</i>
<i>I50.23</i>	<i>Acute on chronic systolic (congestive) heart failure</i>
<i>I50.30</i>	<i>Unspecified diastolic (congestive) heart failure</i>
<i>I50.31</i>	<i>Acute diastolic (congestive) heart failure</i>
<i>I50.32</i>	<i>Chronic diastolic (congestive) heart failure</i>
<i>I50.33</i>	<i>Acute on chronic diastolic (congestive) heart failure</i>
<i>I50.40</i>	<i>Unspecified combined systolic (congestive) and diastolic (congestive) heart failure</i>
<i>I50.41</i>	<i>Acute combined systolic (congestive) and diastolic (congestive) heart failure</i>
<i>I50.42</i>	<i>Chronic combined systolic (congestive) and diastolic (congestive) heart failure</i>
<i>I50.43</i>	<i>Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure</i>
<i>I50.9</i>	<i>Heart failure, unspecified</i>
<i>I51.4</i>	<i>Myocarditis, unspecified</i>
<i>I51.9</i>	<i>Heart disease, unspecified</i>
<i>I52</i>	<i>Other heart disorders in diseases classified elsewhere</i>
<i>I97.0</i>	<i>Postcardiotomy syndrome</i>
<i>I97.110</i>	<i>Postprocedural cardiac insufficiency following cardiac surgery</i>
<i>I97.111</i>	<i>Postprocedural cardiac insufficiency following other surgery</i>
<i>I97.120</i>	<i>Postprocedural cardiac arrest following cardiac surgery</i>
<i>I97.121</i>	<i>Postprocedural cardiac arrest following other surgery</i>
<i>I97.130</i>	<i>Postprocedural heart failure following cardiac surgery</i>
<i>I97.131</i>	<i>Postprocedural heart failure following other surgery</i>
<i>I97.190</i>	<i>Other postprocedural cardiac functional disturbances following cardiac surgery</i>
<i>I97.191</i>	<i>Other postprocedural cardiac functional disturbances following other surgery</i>
<i>I97.710</i>	<i>Intraoperative cardiac arrest during cardiac surgery</i>
<i>I97.711</i>	<i>Intraoperative cardiac arrest during other surgery</i>
<i>I97.790</i>	<i>Other intraoperative cardiac functional disturbances during cardiac surgery</i>
<i>I97.791</i>	<i>Other intraoperative cardiac functional disturbances during other surgery</i>
<i>I97.88</i>	<i>Other intraoperative complications of the circulatory system, not elsewhere classified</i>
<i>I97.89</i>	<i>Other postprocedural complications and disorders of the circulatory system, not elsewhere classified</i>
<i>M32.11</i>	<i>Endocarditis in systemic lupus erythematosus</i>
<i>O90.89</i>	<i>Other complications of the puerperium, not elsewhere classified</i>
<i>Q20.0</i>	<i>Common arterial trunk</i>
<i>Q20.1</i>	<i>Double outlet right ventricle</i>
<i>Q20.2</i>	<i>Double outlet left ventricle</i>
<i>Q20.3</i>	<i>Discordant ventriculoarterial connection</i>
<i>Q20.4</i>	<i>Double inlet ventricle</i>

<i>Q20.5</i>	<i>Discordant atrioventricular connection</i>
<i>Q20.6</i>	<i>Isomerism of atrial appendages</i>
<i>Q20.8</i>	<i>Other congenital malformations of cardiac chambers and connections</i>
<i>Q20.9</i>	<i>Congenital malformation of cardiac chambers and connections, unspecified</i>
<i>Q21.0</i>	<i>Ventricular septal defect</i>
<i>Q21.1</i>	<i>Atrial septal defect</i>
<i>Q21.2</i>	<i>Atrioventricular septal defect</i>
<i>Q21.3</i>	<i>Tetralogy of Fallot</i>
<i>Q21.4</i>	<i>Aortopulmonary septal defect</i>
<i>Q21.8</i>	<i>Other congenital malformations of cardiac septa</i>
<i>Q21.9</i>	<i>Congenital malformation of cardiac septum, unspecified</i>
<i>Q22.0</i>	<i>Pulmonary valve atresia</i>
<i>Q22.1</i>	<i>Congenital pulmonary valve stenosis</i>
<i>Q22.2</i>	<i>Congenital pulmonary valve insufficiency</i>
<i>Q22.3</i>	<i>Other congenital malformations of pulmonary valve</i>
<i>Q22.4</i>	<i>Congenital tricuspid stenosis</i>
<i>Q22.5</i>	<i>Ebstein's anomaly</i>
<i>Q22.6</i>	<i>Hypoplastic right heart syndrome</i>
<i>Q22.8</i>	<i>Other congenital malformations of tricuspid valve</i>
<i>Q22.9</i>	<i>Congenital malformation of tricuspid valve, unspecified</i>
<i>Q23.0</i>	<i>Congenital stenosis of aortic valve</i>
<i>Q23.1</i>	<i>Congenital insufficiency of aortic valve</i>
<i>Q23.2</i>	<i>Congenital mitral stenosis</i>
<i>Q23.3</i>	<i>Congenital mitral insufficiency</i>
<i>Q23.4</i>	<i>Hypoplastic left heart syndrome</i>
<i>Q23.8</i>	<i>Other congenital malformations of aortic and mitral valves</i>
<i>Q23.9</i>	<i>Congenital malformation of aortic and mitral valves, unspecified</i>
<i>Q24.0</i>	<i>Dextrocardia</i>
<i>Q24.1</i>	<i>Levocardia</i>
<i>Q24.2</i>	<i>Cor triatriatum</i>
<i>Q24.3</i>	<i>Pulmonary infundibular stenosis</i>
<i>Q24.4</i>	<i>Congenital subaortic stenosis</i>
<i>Q24.5</i>	<i>Malformation of coronary vessels</i>
<i>Q24.6</i>	<i>Congenital heart block</i>
<i>Q24.8</i>	<i>Other specified congenital malformations of heart</i>
<i>Q24.9</i>	<i>Congenital malformation of heart, unspecified</i>
<i>R00.1</i>	<i>Bradycardia, unspecified</i>
<i>R57.0</i>	<i>Cardiogenic shock</i>
<i>T82.221A</i>	<i>Breakdown (mechanical) of biological heart valve graft, initial encounter</i>
<i>T82.222A</i>	<i>Displacement of biological heart valve graft, initial encounter</i>
<i>T82.223A</i>	<i>Leakage of biological heart valve graft, initial encounter</i>
<i>T82.228A</i>	<i>Other mechanical complication of biological heart valve graft, initial encounter</i>
<i>T82.512A</i>	<i>Breakdown (mechanical) of artificial heart, initial encounter</i>
<i>T82.514A</i>	<i>Breakdown (mechanical) of infusion catheter, initial encounter</i>
<i>T82.518A</i>	<i>Breakdown (mechanical) of other cardiac and vascular devices and implants, initial encounter</i>
<i>T82.519A</i>	<i>Breakdown (mechanical) of unspecified cardiac and vascular devices and implants, initial encounter</i>
<i>T82.522A</i>	<i>Displacement of artificial heart, initial encounter</i>
<i>T82.524A</i>	<i>Displacement of infusion catheter, initial encounter</i>
<i>T82.528A</i>	<i>Displacement of other cardiac and vascular devices and</i>

	<i>implants, initial encounter</i>	
<i>T82.529A</i>	<i>Displacement of unspecified cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.532A</i>	<i>Leakage of artificial heart, initial encounter</i>	
<i>T82.534A</i>	<i>Leakage of infusion catheter, initial encounter</i>	
<i>T82.538A</i>	<i>Leakage of other cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.539A</i>	<i>Leakage of unspecified cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.592A</i>	<i>Other mechanical complication of artificial heart, initial encounter</i>	
<i>T82.594A</i>	<i>Other mechanical complication of infusion catheter, initial encounter</i>	
<i>T82.598A</i>	<i>Other mechanical complication of other cardiac and vascular devices and implants, initial encounter</i>	
<i>T82.599A</i>	<i>Other mechanical complication of unspecified cardiac and vascular devices and implants, initial encounter</i>	
<i>T86.20</i>	<i>Unspecified complication of heart transplant</i>	
<i>T86.21</i>	<i>Heart transplant rejection</i>	
<i>T86.22</i>	<i>Heart transplant failure</i>	
<i>T86.23</i>	<i>Heart transplant infection</i>	
<i>T86.290</i>	<i>Cardiac allograft vasculopathy</i>	
<i>T86.298</i>	<i>Other complications of heart transplant</i>	
<i>T86.30</i>	<i>Unspecified complication of heart-lung transplant</i>	
<i>T86.31</i>	<i>Heart-lung transplant rejection</i>	
<i>T86.32</i>	<i>Heart-lung transplant failure</i>	
<i>T86.33</i>	<i>Heart-lung transplant infection</i>	
<i>T86.39</i>	<i>Other complications of heart-lung transplant</i>	
<i>Z48.21</i>	<i>Encounter for aftercare following heart transplant</i>	
<i>Z48.280</i>	<i>Encounter for aftercare following heart-lung transplant</i>	
<i>Z94.1</i>	<i>Heart transplant status</i>	
<i>Z94.3</i>	<i>Heart and lungs transplant status</i>	
<i>Z95.9</i>	<i>Presence of cardiac and vascular implant and graft, unspecified</i>	

ICD-10 Procedure Code	Definition	Discharges Effective
<i>02HA0RS</i>	<i>Insertion of Biventricular External Heart Assist System into Heart, Open Approach</i>	<i>On or After ICD-10 Implementation</i>
<i>02HA3RS</i>	<i>Insertion of Biventricular External Heart Assist System into Heart, Percutaneous Approach</i>	
<i>02HA4RS</i>	<i>Insertion of Biventricular External Heart Assist System into Heart, Percutaneous Endoscopic Approach</i>	
<i>02PA0QZ</i>	<i>Removal of Implantable Heart Assist System from Heart, Open Approach</i>	
<i>02PA0RZ</i>	<i>Removal of External Heart Assist System from Heart, Open Approach</i>	
<i>02PA3QZ</i>	<i>Removal of Implantable Heart Assist System from Heart, Percutaneous Approach</i>	
<i>02PA3RZ</i>	<i>Removal of External Heart Assist System from Heart, Percutaneous Approach</i>	
<i>02PA4QZ</i>	<i>Removal of Implantable Heart Assist System from Heart, Percutaneous Endoscopic Approach</i>	
<i>02PA4RZ</i>	<i>Removal of External Heart Assist System from Heart, Percutaneous Endoscopic Approach</i>	

5A02116	Assistance with Cardiac Output using Other Pump, Intermittent	
5A02216	Assistance with Cardiac Output using Other Pump, Continuous	
02WA0QZ	Revision of Implantable Heart Assist System in Heart, Open Approach	
02WA0RZ	Revision of External Heart Assist System in Heart, Open Approach	
02WA3QZ	Revision of Implantable Heart Assist System in Heart, Percutaneous Approach	
02WA3RZ	Revision of External Heart Assist System in Heart, Percutaneous Approach	
02WA4QZ	Revision of Implantable Heart Assist System in Heart, Percutaneous Endoscopic Approach	
02WA4RZ	Revision of External Heart Assist System in Heart, Percutaneous Endoscopic Approach	
02HA0RZ	Insertion of External Heart Assist System into Heart, Open Approach	
02HA3RZ	Insertion of External Heart Assist System into Heart, Percutaneous Approach	
02HA4RZ	Insertion of External Heart Assist System into Heart, Percutaneous Endoscopic Approach	
02HA0QZ	Insertion of Implantable Heart Assist System into Heart, Open Approach	
02HA3QZ	Insertion of Implantable Heart Assist System into Heart, Percutaneous Approach	
02HA4QZ	Insertion of Implantable Heart Assist System into Heart, Percutaneous Endoscopic Approach	
5A0211D	Assistance with Cardiac Output using Impeller Pump, Intermittent	
5A0221D	Assistance with Cardiac Output using Impeller Pump, Continuous	

This policy does not address coverage of VADs for right ventricular support, biventricular support, use in beneficiaries under the age of 18, use in beneficiaries with complex congenital heart disease, or use in beneficiaries with acute heart failure without a history of chronic heart failure. Coverage under section 1862(a)(1)(A) of the Social Security Act for VADs in these situations will be made by local Medicare Administrative Contractors (MACs) within their respective jurisdictions.

320.3.5 – Replacement Accessories and Supplies for External VADs or Any VAD

(Rev. 3054, Issued: 08-29-14, Effective: 10-30-13, Implementation: 09-30-14)

Effective April 1, 2013, claims for replacement of accessories and supplies for VADs implanted in patients who were not eligible for coverage under Medicare Part A or had other insurance that paid for the device and hospital stay at the time that the device was implanted, but are now eligible for coverage of the replacement supplies and accessories under Part B, should be submitted using HCPCS code Q0509. Those claims will be manually reviewed.

In rare instances it may be appropriate to pay for replacement of supplies and accessories for external VADs used by patient who are discharged from the hospital. In addition, in some rare instances, it may be necessary for a patient to have an emergency back-up controller for an external VAD. Coverage of these items is at the discretion of the contractor. Claims for replacement of supplies and accessories used with an external VAD that are furnished by suppliers should be billed to the B MACs. Claims for replacement of supplies and accessories used with an external VAD that are furnished by hospitals and other providers should be billed to the A MACs. Effective April 1, 2013, these items should be billed using code Q0507 so that the claims can be manually reviewed.

Claims for replacement supplies or accessories used with VADs that do not have specific HCPCS codes and do not meet the criteria of codes Q0507 and Q0509 should be billed using code Q0508.

Claims Coding

<i>HCP</i>	<i>Definition</i>	<i>Effective Date</i>
<i>Q0507</i>	<i>Miscellaneous Supply Or Accessory For Use With An External Ventricular Assist Device</i>	<i>April 1, 2013</i>
<i>Q0508</i>	<i>Miscellaneous Supply or Accessory For Use With An Implanted Ventricular Assist Device</i>	<i>April 1, 2013</i>
<i>Q0509</i>	<i>Miscellaneous Supply Or Accessory For Use With Any Implanted Ventricular Assist Device For Which Payment Was Not Made Under Medicare Part A</i>	<i>April 1, 2013</i>

Note: When determined to be medically necessary, dressings used with VADs are covered under the prosthetic device benefit as a supply necessary for the effective use of the VAD/prosthetic device. Claims for dressings necessary for the effective use of a VAD should be billed using the appropriate miscellaneous VAD supply code, depending upon whether the patient was eligible for coverage under Medicare Part A at the time that the VAD was implanted. The claims processing jurisdiction for dressings used with VADs is identical to that of other VAD replacement supplies and accessories and does not fall under Durable Medical Equipment MAC jurisdiction.

NOTE: IOM 100-04 Chapter 3 – Remove Section 90.2.1, it has been moved to Chapter 32 Section 320.