



Clinical Policy: Ventricular Assist Devices

Reference Number: LA.CP.MP.46 Date of Last Revision: 5/2206/23 Coding Implications
Revision Log

See <u>Important Reminder</u> at the end of this policy for important regulatory and legal information.

Description

A ventricular assist device (VAD) is a mechanical pump that helps a person's the heart that when it is too weak to pump blood through the body. The VADs are designed to enhance blood flow to the bodily organs, either in conjunction with, or as a replacement for, a damaged or diseased heart. A VAD can be used in both an acute and subacute setting for patients who have poor heart function as a temporary measure as either a "bridge to recovery" or a "bridge to transplant." When used as a "bridge to transplant," a VAD can help a patient survive until a heart transplant can be performed. When used as a "bridge to recovery," a VAD is often used as an adjunctive device in high-risk percutaneous coronary interventions......

Policy/Criteria

- **I.** It is the policy of Louisiana Healthcare Connections that all FDA approved ventricular assist devices (VADs), when used according to their FDA labeled indications (including body size recommendations), are considered **medically necessary** when meeting the following <u>criteria</u>:
 - A. For implantable VADs, none of the following contraindications are applicable:
 - 1. Life expectancy in the absence of heart disease $\leq 2 two$ years;
 - 2. Malignancy within <u>5five</u> years that is expected to significantly limit survival;
 - 3. Irreversible renal or hepatic dysfunction, severe obstructive pulmonary disease, or other systemic disease with multi-organ involvement;
 - 4. A pattern of demonstrated noncompliance or lack of sufficient care-giver support which would place a VAD at serious risk of failure;
 - 5. Active substance abuse, including alcohol.
 - 5. Active substance use or dependence including current tobacco use, vaping, marijuana use (unless prescribed by a licensed practitioner), or IV drug use without convincing evidence of risk reduction behaviors (unless urgent transplant timelines are present, in which case a commitment to reducing behaviors is acceptable). Serial blood and urine testing may be used to verify abstinence from substances that are of concern;
 - B. Has one of the following indications:
 - 1. Post-cardiotomy for support of blood circulation;
 - 1. Short-term mechanical circulatory support as bridge to recovery for one of the following:
 - a. Myocardial infarction complicated by cardiogenic shock;
 - b. High-risk percutaneous coronary artery interventions;
 - c. Fulminant myocarditis presenting with cardiogenic shock;
 - d. Advanced heart failure with cardiogenic shock as a bridge-to-a-bridge;
 - 2. Bridge to transplant for members/enrollees who are awaiting heart transplant (or undergoing evaluation to determine candidacy for heart transplant) and not expected to survive until a donor heart can be obtained;



- 3. Destination therapy for members/enrollees with end-stage heart failure (NYHA Class IV end-stage left ventricular failure for at least 90 days with a life expectancy of ≤ 2two years) who are ineligible for heart transplant due to age or co-morbidities and all of the following:
 - a. Meets one of the following:
 - i. No response to optimal medical management (including beta-blockers and ACE inhibitors, if tolerated) for at least 45 of the last 60 days;
 - ii. Balloon pump-dependent for ≥7 seven days;
 - iii. IV inotrope-dependent for ≥ 14 days;
 - iv. Cardiac Index (CI) < 2.2 L/min/m2, while not on inotropes and meet one of the following criteria:
 - 1) No response to optimal medical management (including beta-blockers and ACE inhibitors, if tolerated), for at least 45 out of the last 60 days;
 - 2) Presence of advanced heart failure for at least 14 days with dependence on an intra-aortic balloon pump (IABP) or similar temporary mechanical circulatory support for at least seven days;
 - b. Left ventricular ejection fraction (LVEF) <≤ 25%, and<u>%</u>;
 - c. Functionally limited with a peak oxygen consumption of \leq 14 ml/kg/min unless balloon pump- or inotrope-dependent, or physically unable to perform the test.
- II. It is the policy of Louisiana Healthcare Connections that Ppediatric-specific ventricular assist devices are considered **medically necessary** if FDA approved or approved under the FDA Humanitarian Device Exemption (HDE) guidelines and used in accordance with the device specific inclusion and exclusion criteria, including body size recommendations. The following criteria must be met:
 - A. Age \leq 16 years, or age specific to FDA approved guidelines;
 - B. Severe isolated left ventricular or biventricular dysfunction;
 - C. As a bridge to heart transplant for members/enrollees who require circulatory support.

HI. Any requests for VADs not meeting the above criteria will be considered **not medically necessary.**

Note: A humanitarian device exemption (HDE) is granted by the FDA. A Humanitarian Use Devicehumanitarian use device (HUD) is a device that is intended to benefit patients in the treatment or diagnosis of a disease or condition that affects fewer than 48,000 individuals in the United States annually. And HUD may only be used in facilities that have established a local institutional review board to supervise clinical testing of devices and after an



IRBindependent review board has approved the use of the device to treat or diagnose the specific disease.-19

Background

Ventricular assist devices (VADs) have proven beneficial to myocardial function through improvement in myocardial contractile performance, reversal of down regulation of beta-receptors in heart failure, restoration of the ability of the heart to respond to the inotropic effects of sympathetic stimulation, normalization of chamber geometry and reduction of myocardial fibrosis, hypertrophy, and disruption in cytoskeletal proteins. These benefits suggest that failing human myocytes are capable of undergoing beneficial functional and electrophysiological changes and can have increased contractile strength in the presence of hemodynamic unloading and improved neurohumoral and circulatory derangements. This remodeling is generally takes approximately 40 days, and shows both clinical benefit and improvement in quality of life.

Since 2000, there have been improved outcomes in VAD implantation in the pediatric population. Early experience involved the most critically ill children who were often were near death at the time of VAD implantation. –More recently, centers' increasing experience with the surgical techniques, timing, and postoperative care; the use of more long-term devices over time; and refinements in patient selection, have resulted in improved outcomes, despite the increasing use of VADs in smaller and more complex patients. Further study is warranted to optimize criteria for pediatric patient and device selection.

In one study reported by Blume, et <u>alal</u>², 86% of pediatric patients who received a VAD were successfully bridged to transplantation from 2000 to 2003. -Prior to 2000, only 63% of pediatric patients were successfully bridged to transplantation. -The subgroups <u>ofincluding</u> patients with congenital heart disease and <u>in smaller</u>, younger patients, who <u>are rarely are large</u> enough for most long-term assist devices, did not have <u>as successful applications assimilar success rates when compared to the restremainder of the population.</u>

A prospective multi-institutional investigational device exemption trial compared patients with the Berlin Heart EXCOR with a control group supported on extracorporeal membrane oxygenation (ECMO). Between May 2009 and December 2010, a total of 48 patients \leq 16 years of age met the inclusion criteria and were separated into 2two cohorts according to body surface area (cohort 1, \leq 0.7 m2; cohort 2, \geq 0.7 m2) with 24 patients in each group. The median survival time for cohorts 1 and 2 (>174 and 144 days, respectively) far exceeded that of ECMO (cohort 1, 13 days; cohort 2, 10 days; P<0.001 by log-rank test). Based on the results of this trial, the Berlin Heart EXCOR was granted HDE approval as a device to provide long-term mechanical circulatory support as a bridge to cardiac transplantation in children with severe left or biventricular dysfunction.



The Post Approval Surveillance report released on the EXCOR Pediatric VAD showed positive contemporary results; reported stroke rate 11% and mortality rate of 12.5%, exceeding primary objectives.

There have been several pediatric VADs approved by the FDA, i.e., The HeartAssist 5 Pediatric VAD, previously known as the DeBakey BAD Child Left Ventricular Assist System and the Berlin Heart's EXCOR VAD.

<u>American Heart Association (AHA)</u>/American College of Cardiology Foundation/American (ACC)/ Heart Association-Failure Society of America (HFSA)¹⁸

Nondurable mechanical circulatory support The most recent AHA/ACC/HFSA Guideline for the Management of Heart Failure suggests that durable LVADs (left ventricular assist devices) should be considered in patients with NHYA class IV symptoms who are dependent on IV inotropes or temporary MCS (mechanical circulatory support). In patients who have NYHA class IV symptoms despite optimal medical therapy, durable MCS can be beneficial to improve symptoms, improve functional class, and reduce mortality.

<u>Temporary MCS</u> including the use of a percutaneous and extracorporeal ventricular assist device isdevices, are reasonable as a 'bridge to recovery'. 17

American Heart Association²⁴

The most recent American Heart Association scientific statement suggests placement of temporary MCS (mechanical circulatory support) devices for patients with longer expected recovery times in the case of cardiogenic shock as "a bridge to recovery, bridge to transplantation or a " or "bridge to decision–strategy".." In patients with cardiogenic shock, temporary MCS is reasonable when end-organ function cannot be maintained by pharmacologic means to support cardiac function.

National Health Service

This organization currently funds the use of long-term VADs as bridge-to-transplant to support heart transplant candidates who are too unwell to undergo the procedure or are unlikely to survive in a good clinical state until a suitable donor heart becomes available. ¹⁸

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2020222, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. –Codes referenced in this clinical policy are for informational purposes only. –Inclusion or exclusion of any codes does not guarantee coverage and may not support medical necessity. –Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.



NOTE: Coverage is subject to each requested code's inclusion on the corresponding LDH fee schedule. Non-covered codes are denoted (*) and are reviewed for Medical Necessity for members under 21 years of age on a per case basis.

CPT ®	Description	
Codes		
33975	Insertion of ventricular assist device; extracorporeal, single ventricle	
33976	Insertion of ventricular assist device; extracorporeal, biventricular	
33977	Removal of ventricular assist device; extracorporeal, single ventricle	
33978	Removal of ventricular assist device; extracorporeal, biventricular	
33979	Insertion of ventricular assist device, implantable intracorporeal, single ventricle	
33980	Removal of ventricular assist device, implantable intracorporeal, single ventricle	
33981	Replacement of extracorporeal ventricular assist device, single or biventricular, pump(s), single or each pump	
33982	Replacement of ventricular assist devices pump(s); implantable intracorporeal, single ventricle, without cardiopulmonary bypass	
33983	Replacement of ventricular assist devices pump(s); implantable intracorporeal, single ventricle, with cardiopulmonary bypass	
33990	Insertion of ventricular assist device, percutaneous including radiological supervision and interpretation; left heart, arterial access only	
33991	Insertion of ventricular assist device, percutaneous including radiological supervision and interpretation; left heart, both arterial and venous access, with transseptal puncture	
33992	Removal of percutaneous <u>left heart</u> ventricular assist device, arterial or arterial and venous cannula(s), at separate and distinct session from insertion	
33993	Repositioning of percutaneous right or left heart ventricular assist device with imaging guidance at separate and distinct session from insertion	
33995	Insertion of ventricular assist device, percutaneous, including radiological supervision and interpretation; right heart, venous access only	
33997	Removal of percutaneous right heart ventricular assist device, venous cannula, at separate and distinct session from insertion	

HCPCS	Description
Codes	
Q0478 <u>*</u>	Power adapter for use with electric or electric/pneumatic ventricular assist device,
	vehicle type
Q0479 <u>*</u>	Power module for use with electric or electric/pneumatic ventricular assist device,
	replacement only
Q0480 <u>*</u>	Driver for use with pneumatic ventricular assist device, replacement only



HCPCS	Description
Codes	
Q0481 <u>*</u>	Microprocessor control unit for use with electric ventricular assist device,
	replacement only
Q0482 <u>*</u>	Microprocessor control unit for use with electric/pneumatic combination
	ventricular assist device, replacement only
Q0483 <u>*</u>	Monitor/display module for use with electric ventricular assist device, replacement
	only
Q0484 <u>*</u>	Monitor/display module for use with electric or electric/pneumatic ventricular
	assist device, replacement only
Q0485 <u>*</u>	Monitor control cable for use with electric ventricular assist device, replacement
	only
Q0486 <u>*</u>	Monitor control cable for use with electric/pneumatic ventricular assist device,
	replacement only
Q0487*	Leads (pneumatic/electrical) for use with any type of electric/pneumatic ventricular
	assist device, replacement only
Q0488 <u>*</u>	Power pack base for use with electric ventricular assist device, replacement only
Q0489*	Power pack base for use with electric/pneumatic ventricular assist device,
	replacement only

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM	Description
Code	
150.1	Left ventricular failure, unspecified
150.20	Unspecified systolic (congestive) heart failure
150.82	Biventricular heart failure
150.84	End stage heart failure
150.9	Heart failure, unspecified
197.0	Postcardiotomy syndrome
Z95.811	Presence of heart assist device
Z76.82	Awaiting organ transplant status

Reviews, Revisions, and Approvals	Revision Date	Approva l Date
Converted corporate to local policy.	08/15/2020	







Colline			
Reviews, Revisions, and Approvals	Revision Date	Approva l Date	
Annual review. References reviewed and updated. Removed ICD-10 code Z94.1 and added Z76.82. Replaced all instances of "member" with members/enrollees. Removed mention of Berlin Heart EXCOR Pediatric VAD under II.A as other pediatric VAD's are being approved. Added "if FDA approved or approved under the FDA HDE guidelines and used in accordance with the device specific inclusion/exclusion criteria, including body size." to II. Added "or age specific to FDA approved guidelines to II.A.1. Changed II.A.3 from "Is a candidate for heart transplant" to "As a bridge to heart transplant." Revised description of CPT-33990, 33991 and 33992.	3/21	3/26/22	
Annual review. References reviewed and updated to AMA format. Changed "review date" in the header to "Date of Last Revision" and "Date" in the revision log header to "Revision Date." Added "Cardiac Index (CI) <2.2 L/min/m², while not on inotropes and meet one of the following criteria: 1. No response to optimal medical management (including beta-blockers and ACE inhibitors, if tolerated, for at least 45 out of the last 60 days; 2. Presence of advanced heart failure for at least 14 days with dependence on an intra-aortic balloon pump (IABP) or similar temporary mechanical circulatory support for at least 7 days" to Policy/Criteria I.B.4 to reflect update to NCD Ventricular Assist Devices 20.9.1 per CMS. Background updated with most recent AHA scientific statement regarding placement of MCS (mechanical circulatory support) devices with no impact on criteria. Reviewed by specialist. Added "and may not support medical necessity" to Coding Implications section.	5/22	8/13/22	
Annual Review. Removed criteria I.B.1. for post-cardiotomy for support of blood circulation and replaced it with bridge to recovery criteria I.B.1.a. through d. Added 33993, 33995, and 33997 to policy.	06/23		

References

- 1. Birks EJ. Intermediate—and long term, Mancini D. Treatment of advanced heart failure with a durable mechanical circulatory support.—device. UpToDate. www.uptodate.com. Updated July 8, 2020.www.uptodate.com. Published November 2022. Accessed January 4, 202220, 2023.
- 2. Blume ED, Naftel DC, Bastardi HJ, et al. Outcomes of children bridged to heart transplantation with ventricular assist devices: a multi-institutional study. *Circulation*. 2006;113(19):2313-to 2319. doi:10.1161/CIRCULATIONAHA.105.577601



- 3. National coverage determination: Ventricular ventricular assist device (20.9.1). Centers for Medicare and Medicaid Services Web site: https://www.cms.gov/medicare-coverage-database. EffectivePublished December 1, 2020. Accessed January 6, 2022 19, 2023.
- 4. Ponikowski P, Voors AA, Anker SD, et al. 2016 ESC <u>guidelines Guidelines</u> for the diagnosis and treatment of acute and chronic heart failure: The Task Force for the diagnosis and treatment of acute and chronic heart failure of the European Society of Cardiology (ESC). Developed with the special contribution of the Heart Failure Association (HFA) of the ESC. [published correction appears in Eur Heart J. 2016 Dec 30;:]. *Eur Heart J.* 2016;37(27). July 2016, p.):2129—to 2200. doi:10.1093/eurheartj/ehw128
- 5. Miller LW, Guglin M. Patient selection for ventricular assist devices: a moving target. *J Am Coll Cardiol*. 2013;61(12):1209-<u>to</u>1221. doi:10.1016/j.jacc.2012.08.1029
- 6. Feldman D, Pamboukian SV, Teuteberg JJ, et al. The 2013 International Society for Heart and Lung Transplantation <u>guidelines Guidelines</u> for mechanical circulatory support: <u>Executive executive</u> summary. *J Heart Lung Transplant*. 2013;32(2):157-<u>to</u>187. doi:10.1016/j.healun.2012.09.013
- 7.—U.S. Food and Drug Administration.—<u>(FDA approves mechanical cardiac assist device for children with heart failure. Cision Press Release Newswire.</u>

 https://www.prnewswire.com/news-releases/fda-approves-mechanical-cardiac-assist-device-for-children-with-heart-failure-135752843.html. Published December 16, 2011. Accessed January 7, 2022.
- 8. U.S. Department of Health & Human Services, FDA. Medical devices:). Humanitarian Device approvals and clearances. Exemption (HDE). DeBakey VAD® Child —H030003. https://www.accessdata.fda.gov/cdrh_docs/pdf3/H030003A.pdf. February 2011. Accessed January 7, 2022.
- 9.7.U.S. Department of Health & Human Service, FDA. Medical devices: Device approvals and clearances. Berlin Heart EXCOR® Pediatric Ventricular Assist Device (VAD) H100004. https://www.accessdata.fda.gov/cdrh_docs/pdf10/H100004A.pdf. Published December 2011. Accessed January 7, 2022System. https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfhde/hde.cfm?id=H030003. February 25, 2004. Accessed January 24, 2023.
- 10.8. Fraser, CD. Berlin Heart's U.S. Food and Drug Administration (FDA). Humanitarian Device Exemption (HDE). EXCOR® Pediatric Ventricular Assist Device (VAD) receives FDA approval. Businesswire.. https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfhde/hde.cfm?id=h100004. Published December 16, 2011. Accessed January 24, 2023.
- 11. Miller, R. FDA panel endorses HDE for Berlin Heart Excor Pediatric VAD. *Heartwire*. July 22, 2011.
- 12. Drummond A. Biomedical surgical planning for pediatric ventricular assist device (PVAD). Dissertation document for Carnegie Mellon University, Carnegie Institute of Technology. 2008.
- 13. Yancy CW, Jessup M, Bozkurt B, et al. 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart



- Association Task Force on practice guidelines. *J Am Coll Cardiol*. 2013;62(16):e147-e239. https://www.jacc.org/doi/full/10.1016/j.jacc.2013.05.019
- 14. National Health Services Division. The clinical and cost effectiveness of long-term ventricular assist devices (VADs) as a bridge to transplant in adults. *Health Improvement Scotland*. July 2011.
- 15.9. <u>15.</u> Vanderpluym CJ, Fynn-Thompson F, Blume ED. Ventricular assist devices in children: progress with an orphan device application. *Circulation*. 2014;129(14):1530-<u>to</u> 1537. doi:10.1161/CIRCULATIONAHA.113.005574
- 17.10. Jeevanandam V, Eisen H, Pinto, D. Short-term mechanical circulatory assist devices. UpToDate. www.uptodate.com. Updated September 3, 2020. Published August 31, 2022. Accessed January 4, 2022. May 10, 2023.
- 18.11. Yarlagadda VV, Maeda K, Zhang Y, et al. Temporary Circulatory Support in U.S. Children Awaiting Heart Transplantation. *J Am Coll Cardiol*. 2017;70(18):2250-__to__2260. doi:10.1016/j.jacc.2017.08.072
- 19.12. Bulic A, Maeda K, Zhang Y, et al. Functional status of United States children supported with a left ventricular assist device at heart transplantation. *J Heart Lung Transplant*. 2017;36(8):890-to_896. doi:10.1016/j.healun.2017.02.024
- 21. Yancy CW, Jessup M, Bozkurt B, et al. 2017 ACC/AHA/HFSA Focused Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America. *J Card Fail*. 2017;23(8):628-651. doi:10.1016/j.cardfail.2017.04.014
- 22.14. Singh RK, Singh TP. Heart failure in children: Management management. UpToDate. www.uptodate.com.
 - Updated June 5, 2019. November 29, 2022. Accessed January 4, 202219, 2023.
- 23.15. Dipchand AI, Kirk R, Naftel DC, et al. Ventricular Assist Device Support as a Bridge to Transplantation in Pediatric Patients. *J Am Coll Cardiol*. 2018;72(4):402-__to__415. doi:10.1016/j.jacc.2018.04.072
- 24.16. Caldeira CCB, Machado RC, Caldeira DCB. Implantation of Short-Term and Long-Term Right Ventricular Assist Devices. *Braz J Cardiovasc Surg.* 2017;32(5):435-<u>to</u>437. doi:10.21470/1678-9741-2017-0021
- 17. Ni hIci T, Boardman HMPHM, Baig K, Stafford JL, et al. Mechanical assist devices for acute cardiogenic shock.—*Cochrane Database of Systematic ReviewsSyst Rev.* 2020, Issue :6. Art. No.: (6):CD013002. DOI: Published 2020 Jun 4. doi:10.1002/14651858.CD013002.pub2-
- 18. Heidenreich PA, Bozkurt B, Aguilar D, et al. 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: Executive Summary: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. Circulation. 2022;145(18):e876-e894. doi:10.1161/CIR.0000000000001062



25.19. U.S. Food and Drug Administration (FDA). Humanitarian Device Exemption (HDE) Program. Guidance for Industry and Food and Drug Administration Staff. https://www.fda.gov/regulatory-information/search-fda-guidance-documents/humanitarian-device-exemption-hde-program. Published September 2019. Accessed January 13, 2022.24, 2023.

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

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