

# Premier Health Plan

## POLICY AND PROCEDURE MANUAL

Policy Number: PA.051.PH  
Last Review Date: 08/09/2018  
Effective Date: 10/01/2018

### PA.051.PH – Ventricular Assist Devices

This policy applies to the following lines of business:

- ✓ Premier Employee

Premier Health Plan considers **Ventricular Assist Devices (VADs)** medically necessary for the following indications:

1. The VAD must be FDA-approved for that specific indication of use.
2. The procedure must be performed in a facility that is a member of the Interagency Registry for Mechanically Assisted Circulatory Support (INTERMACS) and credentialed by the Joint Commission on Accreditation of Healthcare Organizations under the Disease Specific Certification Program for VADs.
3. The facility must have at least one member of the VAD team with experience implanting at least 10 VADs over the course of the previous 36 months.

#### Specific Criteria for each indication of use:

##### 1. Bridge-to-Transplant (All of the following criteria must be met):

- a) Device must be FDA-approved for bridge-to-transplant use and used according to labeling instructions.
- b) Member is approved and listed as a candidate for heart transplantation or undergoing evaluation based on a decision for patient's candidacy by an interdisciplinary patient selection committee (including but not limited to medical doctors, nursing coordinators, social workers, nutritionists, etc.)

*[See Variations for Medicare approved heart transplant center]*

The implanting site, if different from the transplant center, must receive written permission from the Medicare approved heart transplant center under which the patient is listed prior to implantation of the VAD.

The Medicare approved heart transplant center should make every reasonable effort to transplant patients on such devices as soon as medically reasonable. Ideally, the Medicare-approved heart transplant centers should determine patient-specific timetables for transplantation, and should not maintain such patients on VADs if suitable hearts become available.

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## 2. Destination Therapy (All of the following criteria must be met):

- a) Device must be FDA-approved for destination therapy use and used according to labeling instructions.
- b) Patients who have chronic end-stage heart failure (New York Heart Association Class IV end-stage left ventricular failure) who are not candidates for heart transplantation, and meet all of the following conditions:
  1. Have failed to respond to optimal medical management (including beta-blockers and ACE inhibitors if tolerated) for at least 45 of the last 60 days, or have been balloon pump-dependent for 7 days, or IV inotrope-dependent for 14 days; and,
  2. Have a left ventricular ejection fraction (LVEF) < 25%, and,
  3. Have demonstrated functional limitation with a peak oxygen consumption of  $\leq 14$  ml/kg/min unless balloon pump- or inotrope-dependent or physically unable to perform the test.

## 3. Postcardiotomy ventricular dysfunction (Both of the following criteria must be met):

- a) Device is FDA-approved for this purpose and used according to labeling instructions.
- b) All appropriate measures have been attempted to wean patient from the heart bypass such as pharmacologic agents, intra-aortic balloon pump (if applicable).

## 4. Pediatric VADs (Either of the following criteria must be met):

- a) Device is FDA approved for bridge-to-transplant and used according to labeling instructions.
- b) Used in the context of Category B IDE /HDE clinical trial or as a routine cost in a clinical trial (refer to PA-078- Clinical Trials-Coverage of Routine Care Costs and/or PA-079- Experimental and Investigational Services):
  - HeartAssist 5 VAD (MicroMed DeBakey VAD Child) – HDE device used for children ages 5 to 16 years with NYHA Class IV end-stage heart failure, who have been listed as a candidate for heart transplant, with Body Surface Area (BSA)  $\geq 0.7$  m<sup>2</sup> and < 1.5 m<sup>2</sup> and are refractory to medical therapy.
  - Berlin Heart EXCOR Pediatric VAD – HDE device used for infants up to teenagers (0 to 16 years) suffering from NYHA Class IV end-stage heart failure who are refractory to medical therapy and have been listed as a candidate for heart transplantation.

## Limitations

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- A. Use of a non-FDA-approved device except in the context of Category B IDE exemption clinical trial
- B. Patients, parents, or legal guardians who will be unable to follow the guidelines provided by their VAD health care team for use of the device.
- C. Patients who demonstrate an inability to comply with medical recommendations on multiple occasions.
- D. Prior authorization is required unless the VAD is implanted emergently and then notification is still required after implantation so that Case Management may assist these patients.
- E. Irreversible multiple organ dysfunction.
- F. Active systemic infection.
- G. Severely restricted pulmonary function.
- H. Active malignancy (can be reviewed on a case-by-case basis when supported by documentation from an oncologist that expected survival with their cancer is at least 70% at 2 years).
- I. Blood clotting disorders (can be reviewed on a case-by-case basis as this can be frequently present in patients with heart failure and patients who cannot be adequately anticoagulated).
- J. Major neurological deficit.

### Background

A ventricular assist device (VAD) or left ventricular assist device (LVAD) is surgically attached to one or both intact ventricles and is used to assist a damaged or weakened native heart in pumping blood. Improvement in the performance of the native heart may allow the device to be removed.

A VAD differs from an artificial heart. An artificial heart is a biventricular replacement device which requires removal of a substantial part of the native heart, including both ventricles. Removal of this device is not compatible with life, unless the patient has a heart transplant.

Destination therapy is for patients that require permanent mechanical cardiac support.

Post-cardiotomy is the period following open-heart surgery.

### Variation for the Medicare product –

- For criteria of Bridge-to-Transplant, Patient is approved and listed as a candidate for heart transplantation by a Medicare approved heart transplant center and the implanting site, if different than the Medicare-approved transplant center, must

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receive written permission from the Medicare-approved heart transplant center under which the patient is listed prior to implantation of the VAD.

## Codes:

| CPT Codes |  |
|-----------|--|
| Code      | Description  |
| 33975     | Insertion of ventricular assist device; extracorporeal, single ventricle   |
| 33976     | Insertion of ventricular assist device; extracorporeal, biventricular  |
| 33979     | Insertion 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 device pump(s); implantable intracorporeal, single ventricle, without cardiopulmonary bypass                                     |
| 33983     | Replacement of ventricular assist device pump(s); implantable intracorporeal, single ventricle, with cardiopulmonary bypass  |
| 33991     | Insertion of ventricular assist devices, percutaneous including radiological supervision and interpretation; arterial and venous access, with transseptal puncture |

## References

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2. Centers for Medicare and Medicaid Services (CMS): National Coverage Determination (NCD) No. 20.9- Artificial hearts and related devices, Effective date November 9, 2010. <http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=246&ncdver=5&NCAId=211&ver=20&NcaName=Artificial+Hearts&bc=ACAAAAAIAAA&>
3. Centers for Medicare and Medicaid Services (CMS): Medicare Learning Network (MLN) Matters MM7220- Ventricular assist devices (VADs) as destination therapy. Effective date: November 9, 2010. Updated September 18, 2014.

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[http://www.ishlt.org/ContentDocuments/JHLT\\_Feb13\\_MCS\\_Guidelines.pdf](http://www.ishlt.org/ContentDocuments/JHLT_Feb13_MCS_Guidelines.pdf)
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  6. Hayes. Health Technology Brief. HeartMate II (Thoratec Corp.) Left Ventricular Assist Device for Destination Therapy in Adult Patients with Chronic Heart Failure. April 14, 2011.
  7. Hayes. Search & Summary. Ventricular Assist Devices (VADs) in Children and Adolescents with Chronic, End-Stage Heart Failure. September, 24, 2015.
  8. National Heart, Lung, and Blood Institute: What is a ventricular assist device? March 31, 2012. <http://www.nhlbi.nih.gov/health/health-topics/topics/vad/>
  9. U.S. Food and Drug Administration (FDA) Consumer Updates. Devices that keep the heart beating. Last updated: Feb. 24, 2010.  
<http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm048705.htm>
  10. U.S. Food and Drug Administration (FDA). Medical Devices. Device Approvals and Clearances. Berlin Heart EXCOR® Pediatric Ventricular Assist Device (VAD) - H100004. Approval Date: Dec. 16, 2011. Page last updated: 12/4/2012.  
<http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DeviceApprovalsandClearances/Recently-ApprovedDevices/ucm302715.htm>
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<https://circ.ahajournals.org/content/128/16/e240.extract>

### Disclaimer:

Premier Health Plan medical payment and prior authorization policies do not constitute medical advice and are not intended to govern or otherwise influence the practice of medicine. The policies constitute only the reimbursement and coverage guidelines of Premier Health Plan and its affiliated managed care entities. Coverage for services varies for individual members in accordance with the terms and conditions of applicable Certificates of Coverage, Summary Plan Descriptions, or contracts with governing regulatory agencies.

Premier Health Plan reserves the right to review and update the medical payment and prior authorization guidelines in its sole discretion. Notice of such changes, if

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necessary, shall be provided in accordance with the terms and conditions of provider agreements and any applicable laws or regulations.

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