Ventricular Assist Device (VAD)

**Origination:** November 23, 2004  
**Review Date:** April 17, 2019  
**Next Review:** April, 2021

***This policy applies to all Blue Medicare HMO, Blue Medicare PPO, Blue Medicare Rx members, and members of any third-party Medicare plans supported by Blue Cross NC through administrative or operational services.***

**DESCRIPTION OF PROCEDURE**
A ventricular assist device (VAD) or left ventricular assist device (LVAD) is used to assist a damaged or weakened heart to pump blood. The device is surgically attached to one or both intact ventricles and 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.

These devices are used for the support of blood circulation post-cardiotomy (the period following open heart surgery), as a bridge to heart transplant, or as a destination therapy.

**POLICY STATEMENT**
Coverage will be provided for a VAD when it is determined to be medically necessary based on the medical criteria and guidelines shown below are being met.

**BENEFIT APPLICATION**
Please refer to the member’s individual Evidence of Coverage (EOC) for benefit determination. Coverage will be approved according to the EOC limitations, if the criteria are met.

Coverage decisions will be made in accordance with:
- The Centers for Medicare & Medicaid Services (CMS) National Coverage Determinations (NCD);
- General coverage guidelines included in Original Medicare manuals unless superseded by operational policy letters or regulations; and
- Written coverage decisions of local Medicare carriers and intermediaries with jurisdiction for claims in the geographic area in which services are covered.
Benefit payments are subject to contractual obligations of the Plan. If there is a conflict between the general policy guidelines contained in the Medical Coverage Policy Manual and the terms of the member’s particular Evidence of Coverage (EOC), the EOC always governs the determination of benefits.

**INDICATIONS FOR COVERAGE**

1. Preauthorization by the Plan is required;

2. Post-cardiotomy:
   a. Used for support of blood circulation in the period following open heart surgery;
   b. Used according to the Food and Drug Administration (FDA) - approved labeling instructions.

3. Bridge-to-Transplant (VAD):
   a. The member is approved by the Plan and listed as a candidate for heart transplantation by a Medicare approved heart transplant center and
   b. The member is active on the waitlist maintained by the Organ Procurement and Transplantation Network (OPTN).
   c. Used according to the FDA- approved labeling instructions;

4. Destination Therapy:
   A. (VAD) intended for members who require mechanical cardiac support. They must meet A (a-b-c) AND (d; i or ii and iii and iv)
      a. The VAD has to have approval from the FDA for that purpose;
      AND
      b. The member has chronic end-stage heart failure (New York Heart Association Class IV end-stage left ventricular failure)
      AND
      c. The member is not a candidate for heart transplantation at the time of the VAD implant;
      AND
      d. The member meets the following criteria: (i or ii; iii and iv)
         i. Heart failure symptoms have failed to respond to medical management (beta-blockers, and ACE inhibitors if tolerated) for at least 45 of the last 60 days;
OR

ii. have been balloon pump-dependent for 7 days, or IV inotrope-dependent for 14 days;

AND

iii. Documented left ventricular ejection fraction (EF) <25%;

AND

iv. Demonstrated functional limitation with a peak oxygen consumption of <14 ml/kg/min per stress test; unless the member has a balloon pump or is inotropic dependent and unable to perform the test.

e. The surgery is in a Medicare approved facility for VAD. (See links below).

5. Category B investigational device exemption clinical trials or as a routine cost in a clinical trial defined under section 310.1 of the NCD. (In this case, refer to the Medical Policy on Clinical Trials)

WHEN COVERAGE WILL NOT BE APPROVED
All other indications for the use of VADs not listed above.

BILLING/ CODING/PHYSICIAN DOCUMENTATION INFORMATION
This policy may apply to the following codes. Inclusion of a code in the section does not guarantee that it will be reimbursed.

Applicable codes: 33975, 33976, 33977, 33978, 33979, 33980, 33981, 33982, 33983, 33990, 33991, 33922.

The Plan may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

***Note: In regard to related supply codes Q0508 (Miscellaneous supply or accessory for use with an implanted ventricular assist device) and Q0509 (Miscellaneous supply or accessory for use with any implanted ventricular assist device for which payment was not made under Medicare Part A), authorization can be entered and supplies allowed. Please see DME Spreadsheet for Authorization Entry Guidelines.
**SPECIAL NOTES**

VAD implantation must be performed at a Medicare-approved heart transplant facility that has demonstrated competency in performing the procedure. The current list of approved facilities can be located at:


References:


Policy Implementation/Update Information:

- **Revision Date:** November 30, 2006: No criteria changes made.
- **Revision Date:** June 17, 2009: New online policy format; no criteria changes made.
- **Revision Date:** January 5, 2011: Indications For Coverage section: Updated Destination Therapy language under section c, item #1 with current CMS MM7220 language. Removed item #4 since this criterion was removed from MM7220. Reference section: Updated.
- **Revision Date:** June 19, 2013: Annual Review; General Edits, updated codes.
- **Revision Date:** October 31, 2013: National Coverage Determination; 20.9; updated language per new Decision Memo for Ventricular Assist Devices for Bridge-to-Transplant and Destination Therapy (CAG-00432R); viewed online at [www.cms.gov](http://www.cms.gov); 10/30/2013; Added transplant facility list.
- **Revision Date:** April 16, 2014: Policy reviewed; Codes revised.
- **Revision Date:** Annual Review. No changes to coverage criteria. Special Notes – removed web link for OPTN (bridge to transplant) as this is a link for member waitlist not for approved facilities. Reference section updated.
- **Revision Date:** March 21, 2018: Annual Review; No CMS Updates. Minor Revisions Only.
- **Revision Date:** March 20, 2019: CMS update to hyperlink for Approved facilities registry. Updated to [https://www.cms.gov/Medicare/Medicare-General-Information/MedicareApprovedFacilities/VAD-Destination-Therapy-Facilities.html](https://www.cms.gov/Medicare/Medicare-General-Information/MedicareApprovedFacilities/VAD-Destination-Therapy-Facilities.html)

Approval Dates:
Medical Coverage Policy Committee: April 17, 2019

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