Ventricular Assist Device (VAD)

**Origination:** November 23, 2004  
**Review Date:** September 21, 2023  
**Next Review:** September 2024

***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- General coverage guidelines included in Original Medicare manuals unless superseded by operational policy letters or regulations; and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**

Preauthorization by the Plan is required;

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

2. Left Ventricular Assist Devices (LVADs) are covered if they are FDA approved for short-term (e.g., bridge-to-recovery and bridge-to-transplant) or long-term (e.g., destination therapy) mechanical circulatory support for heart failure members who meet the following criteria:
   
   A. The member has New York Heart Association (NYHA) Class IV heart failure; and
   B. A left ventricular ejection fraction (LVEF) ≤ 25%; and
   C. Are inotrope dependent OR have a Cardiac Index (CI) < 2.2 L/min/m2, while not on inotropes, and also meet one of the following:
      
      i. Are on optimal medical management (OMM), based on current heart failure practice guidelines for at least 45 out of the last 60 days and are failing to respond: **or**
      
      ii. Have advanced heart failure for at least 14 days and are dependent on an intra-aortic balloon pump (IABP) or similar temporary mechanical circulatory support for at least 7 days.

3. Beneficiaries receiving a VAD must be managed by an explicitly identified, cohesive, multidisciplinary team of medical professionals with appropriate qualifications, training, and experience. The team must include, at a minimum:
   
   A. At least one physician with cardiothoracic surgery privileges and individual experience implanting at least 10 durable, intracorporeal, left ventricular assist devices over the course of the previous 36 months with activity in the last year
   B. At least one physician with cardiothoracic surgery privileges and individual experience implanting at least 10 durable, intracorporeal, left ventricular assist devices over the course of the previous 36 months with activity in the last year
   C. A VAD program coordinator
   D. A social worker
   E. A palliative care specialist
4. Category B investigational device exemption clinical trials or as a routine cost in a clinical trial defined under section 310.1 of the NCD manual. (In this case, refer to the Medical Policy on Clinical Trials).

5. Facilities must be credentialed by an organization approved by CMS. The process for organizations to apply for CMS approval to be designated as a credentialing organization for LVAD facilities is posted on our web site along with a list of approved credentialing organizations, approved standard versions, and credentialed facilities: http://www.cms.gov/Medicare/Medicare-General-Information/MedicareApprovedFacilities/VAD-Destination-Therapy-Facilities.html

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, 33992.

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

New York Heart Association (NYHA) Classification - The Stages of Heart Failure:
Class I - No symptoms and no limitation in ordinary physical activity, e.g. shortness of breath when walking, climbing stairs etc.
Class II - Mild symptoms (mild shortness of breath and/or angina) and slight limitation during ordinary activity.
Class III - Marked limitation in activity due to symptoms, even during less-than-ordinary activity, e.g. walking short distances (20—100 m). Comfortable only at rest.
Class IV - Severe limitations. Experiences symptoms even while at rest. Mostly bedbound members.
References:
1. Medicare National Coverage Determination (NCD) for Ventricular Assist Devices (ID# 20.9.1); Effective date 10/30/2013; Accessed 08/17/2023 via www.cms.gov.

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; 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/MedicareApprovedFacilitie/VAD-Destination-Therapy-Facilities.html
Revision Date: January 20, 2021; CMS Update; Removed Indications for Coverage 3. B. “The member is active on the waitlist maintained by the Organ Procurement and Transplantation Network (OPTN)”.
Revision Date: October 20, 2021; Staff Clarification: Updated Special Notes section to include Classification of Heart Failure.
Revision Date: September 21, 2023: Annual Review; No CMS Updates. Verbiage added to reflect NCD.

Approval Dates:
Medical Coverage Policy Committee September 21, 2023

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