



Implantable Ventricular Assist Devices and Total Artificial Hearts

I. Policy

University Health Alliance (UHA) will reimburse for implantable ventricular assist devices and total artificial hearts when it is determined to be medically necessary and when it meets the medical criteria guidelines (subject to limitations and exclusions) indicated below.

II. Criteria/Guidelines

A. Bridge to Transplantation

1. Implantable ventricular assist devices with FDA approval or clearance are covered (subject to Limitations and Administrative Guidelines) as a bridge to heart transplantation for patients who are currently listed as heart transplantation candidates and not expected to survive until a donor heart can be obtained or are undergoing evaluation to determine candidacy for heart transplantation.
2. Implantable ventricular assist devices with FDA approval or clearance, including humanitarian device exemptions are covered (subject to Limitations and Administrative Guidelines) as a bridge to heart transplantation in children 16 years old or younger who are currently listed as heart transplantation candidates and not expected to survive until a donor heart can be obtained or are undergoing evaluation to determine candidacy for heart transplantation.
3. Total artificial hearts with FDA-approved devices will be covered (subject to Limitations/Exclusions and Administrative Guidelines) as a bridge to heart transplantation for patients with biventricular failure who meet all of the following criteria:
 - a. The patient is currently listed as a heart transplantation candidate or is undergoing evaluation to determine candidacy for heart transplantation and not expected to survive until a donor heart can be obtained.
 - b. The patient has no other reasonable medical or surgical treatment options.
 - c. The patient is ineligible for other univentricular or biventricular support devices.

B. Destination Therapy

1. Implantable Ventricular assist devices with FDA approval or clearance will be covered (subject to Limitations/Exclusions and Administrative Guidelines) as destination therapy for patients with end-stage heart failure who are ineligible for human heart transplant and who meet the following criteria:
 - a. New York Heart Association (NYHA) class IV heart failure for 60 days or more; or
 - b. NYHA class III/IV for 28 days, received 14 days or more of support with intra-aortic balloon pump or dependent on IV inotropic agents, with two failed weaning attempts.
2. In addition, patients must not be candidates for human heart transplant for one or more of the following reasons:
 - a. 65 years or older; or
 - b. Insulin dependent diabetes mellitus with end-organ damage; or
 - c. Chronic renal failure (serum creatinine > 2.5 mg/dL for 90 days or more); or
 - d. Presence of other clinically significant condition.

- C. Postcardiotomy Setting/Bridge to Recovery
 - 1. Implantable VADs with FDA approval or clearance are covered (subject to Limitations and Administrative Guidelines) in the postcardiotomy setting in patients who are unable to be weaned off cardiopulmonary bypass.
- D. Percutaneous Left Ventricular Assist Devices (pVAD)
 - 1. FDA-approved percutaneous left ventricular assist devices (pVAD) (e.g., the TandemHeart and the Impella) are covered for up to 14 days for the following indications:
 - a. Providing short-term (up to 14 days) circulatory support in cardiogenic shock; or
 - b. As an adjunct to percutaneous coronary intervention (PCI) in the following high-risk patients:
 - i) Persons undergoing unprotected left main or last-remaining-conduit PCI with ejection fraction less than 35 %; or
 - ii) Persons with three vessel disease left ventricular ejection fraction less than 30 %.
 - 2. pVADs are covered past 14 days only in patients awaiting transplantation.

NOTE:

This UHA payment policy is a guide to coverage, the need for prior authorization and other administrative directives. It is not meant to provide instruction in the practice of medicine and it should not deter a provider from expressing his/her judgment.

Even though this payment policy may indicate that a particular service or supply is considered covered, specific provider contract terms and/or member individual benefit plans may apply, and this policy is not a guarantee of payment. UHA reserves the right to apply this payment policy to all UHA companies and subsidiaries.

UHA understands that opinions about and approaches to clinical problems may vary. Questions concerning medical necessity (see Hawaii Revised Statutes §432E-1.4) are welcome. A provider may request that UHA reconsider the application of the medical necessity criteria in light of any supporting documentation.

III. Limitations/Exclusions

- A. Removal of the device (CPT codes 33977-78) is considered part of the global fee and is incidental to the heart transplant.
- B. Other applications of implantable ventricular assist devices, percutaneous left ventricular assist devices, or total artificial hearts are not covered, including but not limited to the use of total artificial hearts as destination therapy because it is not known to be effective in improving health outcomes.
- C. Only FDA approved or cleared implantable ventricular assist devices or artificial hearts are covered.

IV. Administrative Guidelines

- A. Prior authorization is not required.
- B. UHA reserves the right to perform retrospective review using the above criteria to validate if services rendered met payment determination criteria.

CPT Code	Description
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 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 device, percutaneous including radiological supervision and interpretation; both arterial and venous access, with transeptal puncture
93750	Interrogation of ventricular assist device (VAD), in person, with physician or other qualified health care professional analysis of device parameters (e.g., drivelines, alarms, power surges), review of device function (e.g., flow and volume status, septum status, recovery), with programming, if performed, and report
33990	Insertion of ventricular assist device, percutaneous including radiological supervision and interpretation; arterial access only
33992	Removal of percutaneous ventricular assist device at separate and distinct session from insertion
33993	Repositioning of percutaneous ventricular assist device with imaging guidance at separate and distinct session from insertion

HCPCS Code	Description
Q0477	Power module patient cable for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0478	Power adapter for use with electric or electric/pneumatic ventricular assist device, vehicle type
Q0479	Power module for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0480	Driver for use with pneumatic ventricular assist device, replacement only
Q0481	Microprocessor control unit for use with electric ventricular assist device, replacement only
Q0482	Microprocessor control unit for use with electric/pneumatic combination ventricular assist device, replacement only
Q0483	Monitor/display module for use with electric ventricular assist device, replacement only
Q0484	Monitor/display module for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0485	Monitor control cable for use with electric ventricular assist device, replacement only
Q0486	Monitor control cable for use with electric/pneumatic ventricular assist device, replacement only
Q0487	Leads (pneumatic/electrical) for use with any type electric/pneumatic ventricular assist device, replacement only
Q0488	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
Q0490	Emergency power source for use with electric ventricular assist device, replacement only
Q0491	Emergency power source for use with electric/pneumatic ventricular assist device, replacement only

Q0492	Emergency power supply cable for use with electric ventricular assist device, replacement only
Q0493	Emergency power supply cable for use with electric/pneumatic ventricular assist device, replacement only
Q0494	Emergency hand pump for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0495	Battery/power pack charger for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0496	Battery, other than lithium-ion, for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0497	Battery clips for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0498	Holster for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0499	Belt/vest/bag for use to carry external peripheral components of any type ventricular assist device, replacement only
Q0500	Filters for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0501	Shower cover for use with electric or electric/pneumatic ventricular assist device, replacement only
Q0502	Mobility cart for pneumatic ventricular assist device, replacement only
Q0503	Battery for pneumatic ventricular assist device, replacement only, each
Q0504	Power adapter for pneumatic ventricular assist device, replacement only, vehicle type
Q0507	Miscellaneous supply or accessory for use with an external ventricular assist device
Q0508	Miscellaneous supply or accessory for use with an implanted ventricular assist device
Q0509	Miscellaneous supply or accessory for use with any implanted ventricular assist device for which payment was not made under Medicare Part A

V. Policy History

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