

## Heart-Lung Transplantation

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<u>Effective Date</u>	7/1993
<u>Next Review Date</u>	4/15/2024
<u>Coverage Policy</u>	Surgical 28
<u>Version</u>	4

**Member-specific benefits take precedence over medical policy and benefits may vary across plans. Refer to the individual's benefit plan for details <sup>\*</sup>.**

### Purpose:

This policy addresses the surgery for Heart-lung transplantation.

### Description & Definitions:

**Heart-lung transplantation (cardiopulmonary transplantation)** is a procedure to replace the heart and lungs with a donated heart and lungs in a single operation.

### Criteria:

**Heart-Lung transplantation** is considered medically necessary with **All** of the following:

- Individual with a life expectancy of less than 24 months
- Individual that is psychologically stable with adequate social support as documented by a transplant social worker
- Individual with adequate liver and kidney function, defined as a bilirubin of less than 2.5 mg/dl and a creatinine clearance of greater than 50 ml/min/kg
- Individual with adequate functional status, defined as ability to walk and good rehabilitation potential
- Individual without uncontrolled human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) defined by the CDC as CD4 count, 200 cells/mm<sup>3</sup> unless the individual has **All** of the following:
  - CD4 count greater than 200 cells/mm<sup>3</sup> for greater than 6 months
  - Human immunodeficiency virus ribonucleic acid (HIV-1 RNA) undetectable
  - On stable anti-retroviral therapy for greater than 3 months
  - No other complications from AIDS (e.g. opportunistic infection)
- Individual with **1 or more** of the following:
  - Documented end stage cardiopulmonary disease not amenable to medical or surgical intervention
  - Congenital cardiac abnormalities associated with severe pulmonary hypertension (Eisenmenger's complex)
  - Class III or Class IV heart failure
  - Untreatable primary lung disease associated with severe secondary right heart cardiomyopathy associated with irreversible secondary pulmonary hypertension
- Individual with no contraindications as indicated by **All** of the following:
  - Individual **without** Metastatic cancer (except for non-melanomatous skin cancers)
  - Individual **without** untreated or ineffectively treated infections

- Individual **without** medical instability due to serious cardiac or other ongoing medical comorbidities including but not limited to sepsis, myocardial infarction, liver failure.
- Individual **without** serious conditions that cause a limited life expectancy (< 2 years) and transplantation will not improve the individual's condition or life expectancy ie. gastrointestinal disease (bleeding peptic ulcer, diverticulitis, chronic hepatitis, active or recurrent pancreatitis)
- Individual **without** active, systemic lupus erythematosus, scleroderma or sarcoid with multisystem involvement. Patients must be carefully evaluated to ensure that their disease is primarily confined to the lung
- Individual **without** any systemic condition with a high probability of recurrence in the transplanted heart
- Individual **without** progressive neuromuscular disease
- Individual **without** significant chest wall or spinal deformity expected to cause severe restriction after transplantation
- Individual **without** morbid obesity (a pre-transplant BMI equal to or greater than 35 kg/m<sup>2</sup>)
- Individual **without** refractory uncontrolled hypertension
- Individual **without** untreated or unstable cerebrovascular disease
- Individual **without** demonstrated nonadherence to medical recommendations or treatment regimens, which places the transplanted organ at risk
- Individual who **is willing** to risk potential complications from lifelong immunosuppressive medications
- Individual **with** abstinence from smoking for at least 6 months before being considered a candidate for lung transplant
- Other effective medical treatments or surgical options **are not** available

**Heart-lung transplants** are considered **not medically necessary** for any use other than those indicated in clinical criteria.

### Coding:

Medically necessary with criteria:

Coding	Description
33935	Heart-lung transplant with recipient cardiectomy-pneumonectomy

Considered Not Medically Necessary:

Coding	Description
	None

U.S. Food and Drug Administration (FDA) - approved only products only.

### Document History:

Revised Dates:

- 2020: May
- 2019: November
- 2016: February
- 2013: January
- 2009: January
- 2008: January
- 2003: April, June
- 2001: December
- 1996: October

Reviewed Dates:

- 2023: 2023: April
- 2022: April

- 2021: April
- 2018: November
- 2017: November
- 2015: January
- 2014: January
- 2012: January
- 2011: January
- 2010: January
- 2007: December
- 2005: November
- 2004: June, September
- 2002: September
- 2000: November
- 1999: March
- 1998: April
- 1996: July

Effective Date:

- July 1993

## References:

Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

§ 482.68 Special requirement for transplant programs. (2023, Jan 24). Retrieved Feb 2, 2023, from Code of Federal Regulations: <https://www.ecfr.gov/current/title-42/part-482/subpart-e>

(2023). Retrieved Feb 1, 2023, from MCG 26th Edition: <https://careweb.careguidelines.com/ed26/index.html>

(2023). Retrieved Feb 2, 2023, from THE INTERNATIONAL SOCIETY FOR HEART AND LUNG TRANSPLANTATION: <https://www.ishlt.org/>

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Heart-Lung Transplantation. (2022, May 9). Retrieved Feb 2, 2023, from American Heart Association - The Heart Journal: <https://emedicine.medscape.com/article/429188-overview#a6>

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Policy 6: Allocation of Hearts and Heart-Lungs. (2023, Feb). Retrieved Feb 3, 2023, from OPTN - Organ Procurement and Transplantation Network (OPTN) Policies: [https://optn.transplant.hrsa.gov/media/eavh5bf3/optn\\_policies.pdf](https://optn.transplant.hrsa.gov/media/eavh5bf3/optn_policies.pdf)

(2023). Retrieved Feb 3, 2023, from Hayes:

<https://evidence.hayesinc.com/search?q=%257B%2522text%2522:%2522heart%2520lung%2520transplant%2522,%2522title%2522:null,%2522termsource%2522:%2522searchbar%2522,%2522page%2522:%2522B%2522page%2522:0,%2522size%2522:50%252D,%2522type%2522:%2522all%2522,%2522>

### Special Notes: \*

Medical policies can be highly technical and complex and are provided here for informational purposes. These medical policies are intended for use by health care professionals. The medical policies do not constitute medical advice or medical care. Treating health care professionals are solely responsible for diagnosis, treatment, and medical advice. Sentara Health Plan members should discuss the information in the medical policies with their treating health care professionals. Medical technology is constantly evolving, and these medical policies are subject to change without notice, although Sentara Health Plan will notify providers as required in advance of changes that could have a negative impact on benefits.

Services mean both medical and behavioral health (mental health) services and supplies unless We specifically tell You otherwise. We do not cover any services that are not listed in the Covered Services section unless required to be covered under state or federal laws and regulations. We do not cover any services that are not Medically Necessary. We sometimes give examples of specific services that are not covered but that does not mean that other similar services are covered. Some services are covered only if We authorize them. When We say You or Your We mean You and any of Your family members covered under the Plan. Call Member Services if You have questions.

### Keywords:

Heart-lung transplantation, cardiopulmonary transplantation, surgical 28, congenital cardiac abnormalities, cardiopulmonary disease, pulmonary hypertension, lung disease, heart failure, cardiomyopathy, Eisenmenger's complex