Heart/Lung Transplant

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Approved By:	Highmark Health Options – Market Leadership
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Products:	Medicaid
Application:	All participating hospitals and providers
Page Number(s):	1 of 6

Disclaimer

Highmark Health Options medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

POLICY STATEMENT

Highmark Health Options may provide coverage under medical surgical benefits of the Company's Medicaid products for medically necessary heart/lung transplant.

This policy is designed to address medical necessity guidelines that are appropriate for the majority of individuals with a particular disease, illness or condition. Each person's unique clinical circumstances warrant individual consideration, based upon review of applicable medical records.

The qualifications of the policy will meet the standards of the National Committee for Quality Assurance (NCQA) and the Delaware Department of Health and Social Services (DHSS) and all applicable state and federal regulations.

DEFINITIONS

Highmark Health Options (HHO) – Managed care organization serving vulnerable populations that have complex needs and qualify for Medicaid. Highmark Health Options members include individuals and families with low income, expecting mothers, children, and people with disabilities. Members pay nothing to very little for their health coverage. Highmark Health Options currently services Delaware Medicaid: Delaware Healthy Children program (DHCP) and Diamond State Health Plan Plus LTSS (DSHP Plus LTSS) members.

Heart/Lung Transplant – Heart/lung transplantation involves a coordinated triple operative procedure consisting of procurement of a donor heart-lung block, excision of the heart and lungs of the recipient, and implantation of the heart and lungs into the recipient. Heart/lung transplantation refers to the transplantation of one or both lungs and heart from a single cadaver donor.

PROCEDURES

A prior authorization is required.

Heart/lung transplantation may be considered medically necessary for carefully selected individuals with end-stage cardiac and pulmonary disease including, but not limited to ONE of the following diagnoses:

- Irreversible primary pulmonary hypertension with severe heart failure; or
- Nonspecific severe pulmonary fibrosis, with severe heart failure; or
- Eisenmenger complex with irreversible pulmonary hypertension and severe heart failure associated with congenital heart disease that is unable to be surgically repaired; or
- Cystic fibrosis with severe heart failure; or
- Chronic obstructive pulmonary disease with heart failure; or
- Emphysema with severe heart failure; or
- Pulmonary fibrosis with uncontrollable pulmonary hypertension or heart failure.
- In both adult and pediatric individuals, isolated cardiac or pulmonary transplantations are preferred to combined heart/lung transplantation when medical or surgical management-other than organ transplantation-is available.

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Note: In all the above, heart failure must be severe enough that it is unlikely to recover after lung-only transplantation.

Heart/lung retransplantation after a failed primary heart/lung transplant may be considered medically necessary in individuals who meet criteria for heart/lung transplantation.

Heart/lung transplantation or retransplantation not meeting the criteria as indicated in this policy is considered not medically necessary.

In addition to the above criteria and subject to the discretion of the transplant center, a Hepatitis C Virus (HCV) positive donor organ maybe considered an acceptable organ option for an HCV negative adult recipient aged 18 or older.

General Criteria

The factors below are potential contraindications subject to the judgment of the transplant center:

- Known current malignancy, including metastatic cancer; or
- Recent malignancy with high risk of recurrence; or
- Untreated systemic infection making immunosuppression unsafe, including chronic infection; or
- Other irreversible end-stage diseases not attributed to heart or lung disease; or
- History of cancer with a moderate risk of recurrence; or
- Systemic disease that could be exacerbated by immunosuppression; or
- Psychosocial conditions or chemical dependency affecting ability to adhere to therapy.

Heart/Lung-Specific Criteria

When the candidate is eligible to receive a heart in accordance with United Network for Organ Sharing (UNOS) guidelines for cardiac transplantation, the lung(s) shall be allocated to the heart/lung candidate from the same donor. When the candidate is eligible to receive a lung in accordance with the UNOS Lung Allocation System, the heart shall be allocated to the heart/lung candidate from the same donor "after the heart has been offered to all heart and heart-lung potential transplant recipients in allocation

classifications 1 through 4." Candidates with allocation classifications 1 through 4 falls within adult status 1 or 2 or pediatric status 1A.

Specific criteria for prioritizing donor thoracic organs for transplant are provided by the Organ Procurement and Transplantation Network (OPTN) and implemented through a contract with UNOS. Donor thoracic organs are prioritized by UNOS based on recipient medical urgency, distance from donor hospital, and pediatric status. Individuals who are most severely ill are given highest priority.

The following factors are considered in assessing the severity of cardiac illness: reliance on continuous mechanical ventilation, infusion of intravenous inotropes, and/or dependency on mechanical circulatory support (i.e., total artificial heart, intra-aortic balloon pump, extracorporeal membrane oxygenator, ventricular assist device). Factors considered in assessing the severity of pulmonary illness include increased pulmonary artery systolic pressure, pulmonary arterial hypertension, and/or elevated pulmonary vascular resistance.

Additional criteria may be considered in pediatric individuals, including diagnosis of an OPTN-approved congenital heart disease diagnosis, presence of ductal dependent pulmonary or systemic circulation, and diagnosis of hypertrophic or restrictive cardiomyopathy while less than 1-year-old. Of note, pediatric heart transplant candidates who remain on the waiting list at the time of their 18th birthday without receiving a transplant continue to qualify for medical urgency status based on the pediatric criteria.

Individuals who are considered temporarily unsuitable to receive a thoracic organ transplant may be assigned an inactive status.

Post-payment Audit Statement

The medical record must include documentation that reflects the medical necessity criteria and is subject to audit by Highmark Health Options at any time pursuant to the terms of your provider agreement.

Place of Service: Inpatient

CODING REQUIREMENTS

Covered Codes

CPT code	Description
33935	Heart-lung transplant with recipient cardiectomy-pneumonectomy.

Diagnosis Codes

E84.0	E84.8	I27.0	I27.20	I27.21	I27.22	I27.23
I27.24	I27.29	I27.81	I27.82	I27.83	I27.89	I27.9
I50.1	I50.20	I50.21	I50.22	I50.23	I50.30	I50.31
I50.32	I50.33	I50.40	I50.41	I50.42	I50.43	I50.810
I50.811	I50.812	I50.813	I50.814	I50.82	I50.83	I50.84
I50.89	I50.9	J43.0	J43.1	J43.2	J43.8	J43.9

J44.0 J44.1 J44.9 J84.10

REIMBURSEMENT

Participating facilities will be reimbursed per their Highmark Health Options contract.

The International Society for Heart and Lung Transplantation - 2014

The International Society for Heart and Lung Transplantation updated its consensus-based guidelines on the selection of lung transplant recipients. These guidelines made the following statements about lung transplantation:

"Lung transplantation should be considered for adults with chronic, end-stage lung disease who meet all the following general criteria:

- High (greater than 50%) risk of death from lung disease within two (2) years if lung transplantation is not performed.
- High (greater than 80%) likelihood of surviving at least 90 days after lung transplantation.
- High (greater than 80%) likelihood of five (5) year post-transplant survival from a general medical perspective provided that there is adequate graft function."

For combined heart/lung transplant, the guidelines have stated that [individuals] with irreversible myocardial dysfunction or irreparable congenital defects in conjunction with intrinsic lung disease or severe pulmonary arterial hypertension are appropriate candidates for heart/lung transplantation. The guidelines also mentioned that isolated bilateral lung transplantation is associated with comparable or better outcomes in most [individuals] with pulmonary hypertension associated with right ventricular failure.

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POLICY UPDATE HISTORY

10/27/2021	Approved in Medical Policy Committee
11/2021	Approved in QI/UM
02/22/2023	Annual review; approved in Medical Policy Committee
02/28/2023	Approved in QI/UM