

PA.030.MPC Transplant: Pediatric Heart

Maryland Physicians Care considers **Pediatric Heart Transplant** medically necessary for the following indications:

Members under the age of 18 years old requesting heart transplants must meet the specific criteria for recipient characteristics and the specific criteria for the transplant. *(For members 18 years of age or older refer to InterQual criteria)*

Recipient Characteristics - The member's caregiver or established social support network which may include the mother and/or father, other family members, foster care parents, professional health providers, or some combination must meet both of the following:

1. Be capable of long-term intensive care of the child; and
2. Be able to support the exceptional needs of the child.

Specific Criteria for Pediatric Heart Transplant - Clinical indications for heart transplantation include the following:

1. Low cardiac output, and
2. Estimated life expectancy of less than one year without a transplant, and
3. Symptoms refractory or intolerable despite maximal medical therapy with digitalis, diuretics, and vasodilators at maximally-tolerated doses, and
4. Any one of the following underlying conditions:
 - a. Hypoplastic left heart syndrome with right ventricular dysfunction
 - b. Multiple obstructive cardiac neoplasms
 - c. Severe cardiomyopathy
 - d. Severe Ebstein's anomaly in early infancy
 - e. Complex single ventricle with systemic outflow obstruction
 - f. Single ventricle of right ventricular type with arterio-venous (AV) valve regurgitation
 - g. Pulmonary atresia with significant obstructive anomalies of the coronary arteries and intact ventricular septum and sinusoids
 - h. Severe intra-uterine AV valve insufficiency and ventricular dysfunction
 - i. Severe endocardial fibroelastosis
 - j. Complex heart disease associated with the Asplenia Syndrome

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Limitations

- A. All other medical and surgical therapies that might be expected to yield both short- and long-term survival comparable to that of transplantation must have been tried or considered.
- B. Members must first undergo stringent physical and age-appropriate psychological evaluation to determine eligibility for transplant. Members should have no other serious medical problems, and they should be psychologically willing to undergo the stressful surgery and postoperative care necessary.

Background

The International Society for Heart and Lung Transplantation estimates about 350-500 pediatric heart transplantation procedures are conducted each year. The majority of transplant recipients have a five-year survival rate of more than 70%. The leading cause for infants and children are congenital malformations and cardiomyopathy, respectively.

According to the OPTN & SRTR Annual Data Report of 2012, the number of heart transplants performed annually continues to increase gradually. From 1998 to 2004, the number of heart transplants decreased by 14.2%. Since then, the number of heart transplants performed annually has increased by 31.7%.

Codes

N/A

References

1. Azeka E, Jatene MB, Tanaka AC, et al. Clinical recommendations for postoperative care after heart transplantation in children: 21 years of a single-center experience. *Clinics*. 2014 Jan; 69 (suppl 1) 47-50.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3884164/>
2. Canter CE, Shaddy RE, Bernstein D, et al. American Heart Association Scientific Statement. Indications for heart transplantation in pediatric heart disease, *Circulation*, 2007 Jan; 115(5):658-676. doi: 10.1161/CIRCULATIONAHA.106.180449.
<http://circ.ahajournals.org/content/115/5/658.full>
3. Chinnock RE., Ohye RG., Windle,ML.: Pediatric Heart Transplantation, *Medscape*. Updated: June 30, 2022.
<http://emedicine.medscape.com/article/1011927-overview>
4. Center for Medicare and Medicaid Services: Heart Transplants, NCD No. 260.9. Effective Date: 5/1/2008.
<http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=112&ncdver=3&bc=AAAAgAAAAAAAAA%3d%3d&>

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5. Costanzo MR, Augustine S, et al. Selection and treatment of candidates for heart transplantation. A statement for health professionals from the Committee on Heart Failure and Cardiac Transplantation of the Council on Clinical Cardiology, American Heart Association. *Circulation*. 1995; 92(12):3593-3612.
<http://circ.ahajournals.org/content/92/12/3593.full>
6. Deng MC, Smits JM, Packer M. Selecting patients for heart transplantation: which patients are too well for transplant? *Curr Opin Cardiol*. 2002; 17(2):137-144.
<http://www.ncbi.nlm.nih.gov/pubmed/11981245>
7. Frantz R & Olson L. Recipient selection and management before cardiac transplantation. *Am J Med Sci*. 1997 Sept, 314 (3):139-152.
<http://www.ncbi.nlm.nih.gov/pubmed/9298040>
8. Fricker FJ, Addonizio L, Bernstein D, et al. Heart transplantation in children: indications. Report of the Ad Hoc Subcommittee of the Pediatric Committee of the American Society of Transplantation (AST). *Pediatr Transplant*. 1999; 3:333-342.
<http://www.ncbi.nlm.nih.gov/pubmed/10562980>
9. Laks H, Marelli D, Odum J, et al. Heart transplantation in the young and elderly. *Heart Fail Rev*. 2001 Sept; 6(3):221-226.
<http://www.ncbi.nlm.nih.gov/pubmed/11391040>
10. Mancini D. Indications and contraindications for cardiac transplantation. UpToDate. Topic 3528. Version 16.0. Last Updated: August 11, 2002.
http://www.uptodate.com/contents/indications-and-contraindications-for-cardiac-transplantation?source=search_result&search=cardiac+transplantation&selectedTitle=1%7E150
11. OPTN/SRTR 2012: Annual Data Report: Heart.
http://srtr.transplant.hrsa.gov/annual_reports/2012/pdf/05_heart_13.pdf
12. Steinman TI, Becker BN, Frost AE, et al. Guidelines for the referral and management of patients eligible for solid organ transplantation. *Transplantation*. 2001; 71(9):1189-1204.
<http://www.ncbi.nlm.nih.gov/pubmed/11397947>
13. Colvin, Monica M., Smith, Jodi M., et al. OPTN/SRTR 2022 Annual Data Report: Heart. HHS/HRSA. 2024.
https://srtr.transplant.hrsa.gov/annual_reports/2022/Heart.aspx

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