

Adult Heart Transplant Selection Criteria

Policy

To identify appropriate candidates for heart transplant. Generally heart transplantation is indicated in adults suffering from irreversible heart failure, however other rare indications exist.

Indications

- 1) End-stage heart disease with significant risk of one-year mortality
 - A) New York Heart Association Class III or IV heart failure refractory to maximal medical therapy
 - Severely reduced left ventricular ejection fraction
 - Severely reduced functional capacity
 - Poor progress, based on Cardiopulmonary Stress Test, Maximal Oxygen Consumption (MVO₂)
 - » Attainment of anaerobic threshold and RER > 1.05 on optimal therapy for valid test results
 - » On Beta Blockers: MVO₂ < 12 mL/kg/min
 - » Intolerant of Beta Blockers: MVO₂ < 14 mL/kg/min
 - » Sub-maximal Test (RER < 1.05): V_E/Vco₂ slope > 35
 - » Obese (BMI > 30 kg/m²): MVO₂ < 19 mL/kg/min (adjusted to lean body mass)
 - » Young patient or Women: MVO₂ < 50% of predicted
 - Heart Failure Survival Score: high risk
 - B) Unresectable benign primary cardiac tumors
- 2) Intractable symptoms
 - A) Inoperable coronary artery disease with intractable angina
 - B) Refractory ventricular arrhythmias

Contraindications

Absolute Exclusion Criteria

- 1) Fixed pulmonary hypertension (PVR > 3 Wood units, transpulmonary gradient > 15 mmHg after milrinone, nitroprusside, nesiritide, epoprostenol, nicardipine or nitric oxide)
- 2) Severe, chronic disabling diseases
- 3) Severe, irreversible, chronic impairment of other vital organs:
 - A) Renal: Creatinine clearance < 30 (not heart-kidney transplant candidate)
 - B) Gastrointestinal: Chronic peptic ulcer diathesis, inflammatory bowel disease or chronic gastrointestinal bleeding
 - C) Liver: Acute hepatic failure or biopsy proven cirrhosis
 - D) Pulmonary: COPD, severe restrictive disease from pulmonary fibrosis
 - E) Hematologic: Significant coagulopathy or bleeding diathesis
 - F) Central Nervous System: Significant paralysis or disabling stroke or other disabling neurological conditions
- 4) Recent or uncontrolled malignancy
- 5) Symptomatic, severe peripheral, visceral, carotid or cerebrovascular disease not amenable to correction

- 6) Malignant hypertension refractory to medical therapy
- 7) Inability to discontinue drug, tobacco, or alcohol use
- 8) Active mental illness that interferes with compliance with medical treatment
- 9) Psychosocial instability, lack of social or family support, ongoing noncompliance with medical treatment

Relative Exclusion Criteria

- 1) Age greater than 70
- 2) Pulmonary infarction within the past 6 weeks
- 3) Very brittle diabetes or diabetes with end organ damage — severe neuropathy, nephropathy, retinopathy, vasculopathy or gastroparesis
- 4) Major chronic disabling diseases:
 - A) Arthritis, stroke, or neurological disease preventing physical rehabilitation or self care
 - B) Active, severe, systemic inflammatory or collagen vascular disease
- 5) Recent or uncontrolled peptic ulcer disease
- 6) Active, but treatable infection (temporary)
- 7) Hypertension refractory to medical therapy
- 8) Morbid obesity (BMI > 38, 130% of ideal body weight)
- 9) HIV seroconversion

Documentation of Selection Criteria

Documentation of patient selection criteria utilized for each decision related to patient's suitability for listing will be entered into patient's medical record. Any exception to selection criteria will be identified and documented at the time the patient is listed.