



Trillium
Gift of Life
Network

Ontario's Paediatric Referral Criteria for Lung Transplantation

Version 1.0



Ontario Health
Trillium Gift of Life Network

Ontario's Paediatric Referral Criteria for Lung Transplantation

Lung transplantation candidates who are under the age of 18 years old are considered paediatric patients.

PATIENT REFERRAL CRITERIA:

The patient referral criteria are guidelines, which a Health Care Provider would utilize to refer a patient to a transplant center for assessment. In general, referral for lung transplantation assessment is advisable when patients have a less than 50%, 2- to 3-year predicted survival, a poor quality of life, untreatable end-stage lung disease (which may be congenital), or untreatable pulmonary vascular disease.

The criteria identified below are the agreed upon conditions for which a patient should be referred for lung transplant assessment.

- 1) Child Interstitial Lung Disease (chILD):** Referral for lung transplantation should be considered for patients with childhood interstitial lung diseases (chILD) and respiratory insufficiency or unresponsiveness to medical interventions. This includes infants with alveolar capillary dysplasia and various surfactant deficiencies (e.g. surfactant B deficiency, ABCA3 mutation, etc.).
- 2) Congenital Heart Disease (CHD):** Referral for lung transplantation should be considered for appropriate patients with congenital heart disease (CHD).
- 3) Cystic Fibrosis (CF) and Other Causes of Bronchiectasis:** Referral for lung transplantation should be considered for patients with cystic fibrosis (CF) and other causes of bronchiectasis. These patients would have at least one of the following:
 - **FEV1 is <50% predicted and rapidly declining (defined as >20% decline in 12 months);**
 - **FEV1 is <50% predicted with markers of shortened survival (see below);**
 - **FEV1 is <40% predicted.**
 - Hypoxemia (at rest or with exertion);
 - Hypercarbia (Partial pressure of carbon dioxide [P_aCO_2] >50mmHg, confirmed on arterial blood gas or capillary blood gas);
 - Pulmonary hypertension (Pulmonary arterial systolic pressure >50mmHg on echocardiogram or evidence of right ventricular dysfunction in the absence of a tricuspid regurgitant jet);
 - Recurrent Pulmonary exacerbation(s) requiring hospitalization;
 - Life-threatening hemoptysis; or
 - Respiratory failure needing non-invasive ventilation (NIV)
- 4) Pulmonary Vascular Disease:** Referral for lung transplantation should be considered for patients with pulmonary hypertension and/or pulmonary vascular diseases. These patients may have the following:
 - Progressive or persistent disease despite optimal targeted pulmonary artery hypertension therapy manifest by one or more of the following:
 - NYHA functional class III-IV
 - Significant RV dysfunction
 - Pericardial effusion

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- Elevated or rising BNP or NT-proBNP
 - Known or suspected pulmonary veno-occlusive disease (PVOD), or pulmonary capillary hemangiomatosis
 - At time of initiation of parental therapy for PAH

5) Re-transplantation: Referral for lung transplantation should be considered for patients with conditions that lead to the need for re-transplantation. These conditions may include chronic lung allograft dysfunction (CLAD) / bronchiolitis obliterans syndrome (BOS).

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