Medical Policy
Lung and Lobar Lung Transplant

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Policy Number: 015
BCBSA Reference Number: 7.03.07

Related Policies
- Heart/Lung Transplant, #269

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Lung transplantation for carefully selected patients with irreversible, progressively disabling, end-stage pulmonary disease unresponsive to maximum medical therapy is MEDICALLY NECESSARY for patients with one or more of the conditions listed below.

Lobar lung transplant from a living or deceased donor for carefully selected patients with end-stage pulmonary disease is MEDICALLY NECESSARY for patients with one or more of the conditions listed below.

Conditions
- Bilateral bronchiectasis,
- Alpha-1 antitrypsin deficiency,
- Primary pulmonary hypertension,
- Cystic fibrosis (both lungs to be transplanted),
- Bronchopulmonary dysplasia,
- Postinflammatory pulmonary fibrosis,
- Idiopathic/interstitial pulmonary fibrosis,
- Sarcoidosis,
- Scleroderma,
- Lymphangiomatomatosis,
- Emphysema,
- Eosinophilic granuloma,
Bronchiolitis obliterans,
Recurrent pulmonary embolism,
Pulmonary hypertension due to cardiac disease,
Chronic obstructive pulmonary disease, or
Eisenmenger’s syndrome.

Lung or lobar lung transplants in patients with any of the following conditions are NOT MEDICALLY NECESSARY:

- Known active malignancy, including metastatic cancer
- Recently treated malignancy with a high risk of recurrence
  - Note: the assessment of risk of recurrence of a recently treated malignancy is made by the transplant team; providers must submit a statement with an explanation of why the patient with a recently treated malignancy is an appropriate candidate for a transplant.
- Untreated systemic infection making immunosuppression unsafe, including chronic infection
- Other irreversible end-stage disease not attributed to lung disease
- History of cancer with a moderate risk of recurrence
- Systemic disease that could be exacerbated by immunosuppression
- Psychosocial conditions or chemical dependence affecting the ability to adhere to therapy
- Coronary artery disease not amenable to percutaneous intervention or bypass grafting, or associated with significant impairment of left ventricular function, or
- Colonization with highly resistant or highly virulent bacteria, fungi, or mycobacteria.

Lung or lobar lung retransplantation after a failed lung or lobar lung transplant may be considered MEDICALLY NECESSARY in patients who meet criteria for lung transplantation.

Lung or lobar lung transplantation is INVESTIGATIONAL in all other situations.

Prior Authorization Information
Pre-service approval is required for all inpatient services for all products.
See below for situations where prior authorization may be required or may not be required for outpatient services.
Yes indicates that prior authorization is required.
No indicates that prior authorization is not required.

<table>
<thead>
<tr>
<th>Outpatient</th>
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<tbody>
<tr>
<td>Commercial Managed Care (HMO and POS)</td>
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<td>Commercial PPO and Indemnity</td>
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<td>Medicare HMO Blue℠</td>
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<td>Medicare PPO Blue℠</td>
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CPT Codes / HCPCS Codes / ICD-9 Codes
The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member. A draft of future ICD-10 Coding related to this document, as it might look today, is included below for your reference.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

<table>
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<tr>
<th>CPT Codes</th>
<th>Code Description</th>
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<tr>
<td>32851</td>
<td>Lung transplant, single; without cardiopulmonary bypass</td>
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</table>
A lung transplant consists of replacing all or part of diseased lungs with healthy lung(s). Transplantation is an option for patients with end-stage lung disease.

**Background**

End-stage lung disease may be the consequence of a number of different etiologies. The most common indications for lung transplantation are chronic obstructive pulmonary disease (COPD), idiopathic pulmonary fibrosis, cystic fibrosis, alpha-1 antitrypsin deficiency, and idiopathic pulmonary arterial hypertension. Prior to the consideration for transplant, patients should be receiving maximal medical therapy, including oxygen supplementation, or surgical options, such as lung-volume reduction surgery for COPD. Lung or lobar lung transplantation is an option for patients with end-stage lung disease despite these measures.
A lung transplant refers to single-lung or double-lung replacement. In a single-lung transplant, only 1 lung from a deceased donor is provided to the recipient. In a double-lung transplant, both the recipient's lungs are removed and replaced by the donor's lungs. In a lobar transplant, a lobe of the donor's lung is excised, sized appropriately for the recipient's thoracic dimensions, and transplanted. Donors for lobar transplant have primarily been living-related donors, with 1 lobe obtained from each of 2 donors (eg, mother and father) in cases for which bilateral transplantation is required. There are also cases of cadaver lobe transplants. Combined lung-pancreatic islet cell transplant is being studied for patients with cystic fibrosis.(1)

Since 2005, potential recipients have been ranked according to the Lung Allocation Score (LAS).(2,3) Patients 12 years of age and older receive a score between 1 and 100 based on predicted survival after transplantation reduced by predicted survival on the waiting list; the LAS takes into consideration the patient's disease and clinical parameters. In 2010, a simple priority system was implemented for children younger than age 12 years. Under this system, children younger than 12 years with respiratory lung failure and/or pulmonary hypertension who meet criteria are considered “priority 1” and all other candidates in the age group are considered “priority 2”. A lung review board has the authority to adjust scores on appeal for adults and children.

Summary
The literature on lung and lobar lung transplantation, which consists of case series and registry data, demonstrates that lung and lobar lung transplantation provides a survival benefit in appropriately selected patients and thus may be considered medically necessary. It may be the only option for some patients with end-stage lung disease.

The literature on lung retransplantation is limited but is accumulating in registry data. As in lung transplantation, lung retransplantation may be the only option for patients with failed lung transplantation.

Policy History

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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>10/2014</td>
<td>Coding information clarified.</td>
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<tr>
<td></td>
<td>New medically necessary and investigational indications described.</td>
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<td></td>
<td>Effective 6/1/2014.</td>
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<tr>
<td>5/2014</td>
<td>Updated Coding section with ICD10 procedure and diagnosis codes,-effective 10/2015.</td>
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<tr>
<td>12/2013</td>
<td>Removed ICD-9 diagnosis codes as the policy requires prior authorization</td>
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<tr>
<td>6/2013</td>
<td>BCBSA National medical policy review.</td>
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<tr>
<td></td>
<td>No changes to policy statements.</td>
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References


