

## Payment Policy | Lung Volume Reduction Surgery



**EFFECTIVE DATE:** 10/2/2003  
**POLICY LAST UPDATED:** 12/04/2012

### OVERVIEW

This payment policy documents the coverage determination for Lung Volume Reduction Surgery. Lung volume reduction surgery (LVRS) is proposed as a treatment option for patients with severe emphysema who have failed optimal medical management. The procedure involves the excision of diseased lung tissue and aims to reduce symptoms and improve quality of life.

### PRIOR AUTHORIZATION

Prior authorization is not required.

### POLICY STATEMENT

#### BlueCHiP for Medicare and Commercial

Lung volume reduction surgery is covered for patients with severe emphysema.

### MEDICAL CRITERIA

Not Applicable

### BACKGROUND

Lung volume reduction surgery (LVRS) is proposed as a treatment option for patients with severe emphysema who have failed optimal medical management. The procedure involves the excision of diseased lung tissue and aims to reduce symptoms and improve quality of life.

Lung volume reduction is a surgical treatment for patients with severe emphysema involving the excision of peripheral emphysematous lung tissue, generally from both upper lobes. The precise mechanism of clinical improvement for patients undergoing lung reduction surgery has not been firmly established. However, it is believed that elastic recoil and diaphragmatic function are improved by reducing the volume of diseased lung. In addition to changes in chest wall and respiratory mechanics, the surgery is purported to correct ventilation perfusion mismatch and improve right ventricular filling.

Current research on LVRS has focused on defining the sub-group of patients most likely to benefit from the procedure. Potential benefits of the procedure e.g., improvement in functional capacity and quality of life must be weighed against the potential risk of the procedure e.g., risk of post-operative mortality.

The treatment is palliative, not curative, and is intended to relieve dyspnea and improve functional status and quality of life in patients' severe emphysema. Patients continue to have severe emphysema and most patients will show further progression of their disease over time.

Lung volume reduction surgery is typically used as a treatment for emphysema may be considered in patients with emphysema who meet ALL of the following criteria\*:

- Predominantly upper lobe emphysema with hyperinflation and heterogeneity (i.e., target areas for removal)
- Forced expiratory volume in one second (FEV-1):
  - For patients who are younger than 70 years of age, the FEV-1 must be no more than 45% of the predicted value.

- For patients who are 70 years of age or older, the FEV-1 must be no more than 45% of the predicted value and greater than or equal to 15% of the predicted value.
- Marked restriction in activities of daily living despite maximal medical therapy
- Age younger than 75 years
- Acceptable nutrition status; i.e., 70–130% of ideal body weight
- Ability to participate in a vigorous pulmonary rehabilitation program
- No coexisting major medical problems that would significantly increase operative risk
- Willingness to undertake risk of morbidity and mortality associated with LVRS
- Abstinence from cigarette smoking for at least 4 months

**COVERAGE**

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage, Subscriber Agreement for applicable surgery benefits/coverage.

**CODING**

**Blue CHiP for Medicare and Commercial Products**

32491	G0302	G0303	G0304	G0305
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**RELATED POLICIES**

None

**PUBLISHED**

Provider Update	Feb 2013
Provider Update	June 2008
Policy Update	July 1997

**REFERENCES**

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National Institute for Clinical Excellence (NICE). Lung volume reduction surgery for advanced emphysema. Interventional Procedure Guidance 114. London, UK: NICE; February 2005.

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