

**EFFECTIVE DATE:** 10|02|2003

**POLICY LAST UPDATED:** 10|06|2015

## OVERVIEW

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.

## MEDICAL CRITERIA

Not applicable

## PRIOR AUTHORIZATION

Not applicable

## POLICY STATEMENT

### BlueCHiP for Medicare and Commercial Products

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

## COVERAGE

Benefits may vary among groups. Please refer to the appropriate Benefit Booklet, Evidence of Coverage, or Subscriber Agreement for applicable surgery benefits/coverage.

## BACKGROUND

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.

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).

LVRS 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):
  - o For patients who are younger than 70 years of age, the FEV-1 must be no more than 45% of the predicted value.
  - o 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

\* Patient selection criteria are based on the National Emphysema Treatment Trial (NETT).

## **CODING**

### **BlueCHiP for Medicare and Commercial Products**

The following CPT codes are covered when the conditions above are met:

**32491            32672**

## **RELATED POLICIES**

None

## **PUBLISHED**

Provider Update, December 2015

Provider Update, February 2013

Provider Update, June 2008

## **REFERENCES**

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