

Rationale and design of The National Emphysema Treatment Trial: a prospective randomized trial of lung volume reduction surgery. The National Emphysema Treatment Trial Research Group. Chest 1999 Dec;116(6):1750-1761.

The National Emphysema Treatment Trial is a multicenter, randomized clinical trial of medical therapy vs medical therapy plus lung volume reduction surgery (LVRS) for the treatment of patients with severe bilateral emphysema. LVRS will be accomplished by bilateral stapled excision via median sternotomy or video-assisted thoracoscopic surgery. Every patient will complete 6 to 10 weeks of pulmonary rehabilitation prior to randomization and will participate in a maintenance program of pulmonary rehabilitation after randomization. The primary outcome to be assessed by the trial is survival. Additional outcomes to be assessed are maximum exercise capacity, pulmonary function, oxygen requirement, distance walked in 6 min, quality of life, respiratory symptoms, and health-care utilization and costs. In addition, selected clinics will evaluate lung mechanics and respiratory muscle function, partial and maximal flow-volume curves, gas exchange during maximal exercise, and right heart function. The trial is targeted to enroll patients with severe emphysema who have no significant comorbid conditions; each patient will be randomized to one of the two treatment groups. The study duration is 4.5 years with a close-out period of 6 months.