

## **National Heart, Lung, and Blood Institute Home Oxygen Therapy Trial for Chronic Obstructive Pulmonary**

*The LOTT will determine the effectiveness and safety of long-term, home-administered oxygen therapy in patients with moderate COPD. Findings will inform decision-making about extending coverage for home oxygen treatment to such patients.*

### **Lead Agency:**

National Heart, Lung, and Blood Institute (NHLBI)/  
National Institutes of Health (NIH)

### **Agency Mission:**

- Provide leadership for a national program in diseases of the heart, blood vessels, lung, and blood; blood resources; and sleep disorders.
- Plan, conduct, foster, and support an integrated and coordinated program of basic research, clinical investigations and trials, observational studies, and demonstration and education projects related to the causes, prevention, diagnosis, and treatment of heart, blood vessel, lung, and blood diseases; and sleep disorders.
- Conduct educational activities for health professionals and the public with an emphasis on prevention.
- Support research training and career development of new and established researchers in fundamental sciences and clinical disciplines.

### **Principal Investigator:**

#### **Steering Committee Chairman:**

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#### **NHLBI Project Officer:**

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### **Partner Agencies:**

The Centers for Medicare and Medicaid Services (CMS)

### **General Description:**

#### **Home Oxygen Therapy Trial for Chronic Obstructive Pulmonary Disease**

The NHLBI, in collaboration with the Center for Medicare and Medicaid Services (CMS), has launched a large randomized clinical trial of the effectiveness and safety of long-term, home oxygen therapy for COPD (chronic obstructive pulmonary disease). The six-year, \$28 million project will study patients with moderate disease.

COPD, a lung disease that severely impairs the ability to breathe, is the fourth most common cause of death in the United States. In the Long-Term Oxygen Treatment Trial (LOTT), researchers at 14 clinical centers across the United States will study approximately 3,500 COPD patients to determine whether supplemental oxygen will improve longevity, exercise capacity, and quality of life.

The results will provide a scientific basis for decisions about whether to extend Medicare coverage for home oxygen treatment to patients with moderate disease. Currently, coverage of home oxygen therapy is limited to beneficiaries with severe COPD (very low blood oxygen levels while resting).

***Excellence:*** What makes this project exceptional?

LOTT is the largest randomized clinical trial of the effectiveness and safety of long-term, home oxygen therapy for COPD.

***Significance:*** How is this research relevant to older persons, populations and/or an aging society?

Approximately 12 million adults in the United States have been diagnosed with COPD, and it is believed that another 12 million have the disease but are unaware of it. COPD typically develops in older persons after years of cigarette smoking. It is a major cause of disability and death.

***Effectiveness:*** What is the impact and/or application of this research to older persons?

If the LOTT determines that home oxygen treatment is beneficial for patients with moderate COPD, it is likely that Medicare coverage for this therapy will follow.

***Innovativeness:*** Why is this research exciting or newsworthy?

Many individuals with COPD are desperate for approaches to alleviate symptoms and improve function, and they are largely dependent on Medicare coverage to pay for treatment.