

# Clinical Trial Published in JAMA Offers New Hope for COPD Patients

The addition of home non-invasive ventilation (NIV) significantly prolonged median time to readmission or death from 1.4 months to 4.3 months

Nearly 1 in 4 COPD patients are re-hospitalized within 30 days of discharge, placing an enormous economic burden on healthcare systems

WASHINGTON, May 21, 2017 /PRNewswire/ -- People suffering from chronic obstructive pulmonary disease (COPD) – the third leading cause of death in the United States – may see their lives change thanks to a ResMed-sponsored clinical trial (NYSE: RMD) presented at the 2017 American Thoracic Society International Conference and published in the Journal of the American Medical Association (JAMA) today.

The trial, Home Oxygen Therapy - Home Mechanical Ventilation (HOT-HMV), was designed to investigate the effect of using non-invasive ventilation (NIV) at home on time to hospital readmission or death. Patients in the study had persistent hypercapnia (high levels of carbon dioxide in their blood) and had recently been hospitalized for a worsening of their COPD.

Patients in the study who received NIV at home in addition to oxygen therapy had a 51 percent decreased risk of re-hospitalization or death, and stayed out of the hospital more than three times longer, compared to those who received oxygen alone.

"This trial adds decisively to the growing body of evidence supporting the broader use of non-invasive ventilation for patients with COPD," said ResMed chief medical officer Carlos Nunez, M.D. "Just knowing NIV can help cut re-hospitalization or death risk in half is a game changer."

The Global Initiative for Obstructive Lung Disease, an international collaboration of experts on COPD, recently updated their guidelines to include a level B recommendation for home NIV for hypercapnic COPD patients after an exacerbation.

## Economic Impact

The number of people with COPD globally is estimated to be 384 million<sup>1</sup>. In 2014, the Centers for Disease Control and Prevention (CDC) estimated COPD cost the United States \$36 billion annually in medical costs and absenteeism, and projected medical costs alone related to COPD could rise to \$49 billion by 2020.

One reason is that nearly one in four COPD patients in the U.S. who leave the hospital after an acute exacerbation will be re-hospitalized within 30 days, driving increased costs to the healthcare system and significantly impacting the patients' quality of life.

To curb the financial impact of this re-hospitalization, the U.S. Centers for Medicare and Medicaid Services now penalizes hospitals with high readmission rates after an acute exacerbation of COPD.

## About the HOT-HMV Study

More details on the study can be found on the JAMA website:  
<http://jamanetwork.com/journals/jama/fullarticle/2627985>.

## About COPD

COPD is a collection of lung diseases including chronic bronchitis and emphysema. It is a progressive, fatal condition that causes irreversible damage to the lungs and airways. It can have a major impact on an individual's quality of life. It is the third leading cause of death in the U.S. and is the only major disease that is increasing in prevalence globally, across all continents.

During the course of their disease, COPD patients can experience acute exacerbations, which manifest themselves as a sudden worsening of symptoms and can lead to respiratory failure, hospitalization and death. Although the damage caused by COPD cannot be reversed, it is possible to slow the progression of the disease through treatment and lifestyle changes.

## About ResMed

ResMed (NYSE: RMD) changes lives with award-winning medical devices and cloud-based software applications that better diagnose, treat and manage sleep apnea, chronic obstructive pulmonary disease (COPD) and other

chronic diseases. ResMed is a global leader in connected care, with more than 3 million patients remotely monitored every day. Our 5,000-strong team is committed to creating the world's best tech-driven medical device company – improving quality of life, reducing the impact of chronic disease, and saving healthcare costs in more than 100 countries. [ResMed.com](https://resmed.com) | [Facebook](#) | [Twitter](#) | [LinkedIn](#)

<sup>1</sup> Global and regional estimates of COPD prevalence: Systematic review and meta-analysis, Journal of Global Health, 2015

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