



New Study Demonstrates Benefits of Pulmonx Zephyr® Endobronchial Valve in Patients With Homogeneous Emphysema

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Results Published in American Journal of Respiratory and Critical Care Medicine Show Meaningful Improvements in Patient Lung Function, Exercise Tolerance and Quality of Life

Redwood City, Calif. – Sept 5, 2016 – Positive results from the IMPACT study demonstrate that patients with homogeneous emphysema benefit from treatment with [Pulmonx Corporation's](#) proprietary [Zephyr® Endobronchial Valves \(EBV\)](#), according to a new study published online in the [American Journal of Respiratory and Critical Care Medicine](#). Patients pre-selected with the [Chartis® System](#) and treated with EBV experienced clinically meaningful improvements in lung function, exercise tolerance, and quality of life compared to the control group. These data indicate that EBV therapy can benefit substantially more patients than previously believed.

The IMPACT study is the first prospective, randomized, multi-center study examining the effectiveness of the Zephyr EBV specifically in patients with homogeneous emphysema. The study enrolled and randomized 93 patients with severe homogeneous emphysema to compare the safety and effectiveness of Zephyr EBV treatment against medical management. The company's proprietary Chartis System was used to select patients with little or no collateral ventilation who are most likely to benefit from treatment, and advanced imaging technology was used to select a target lobe for treatment.

Three-month results from the IMPACT study showed that patients with homogeneous emphysema and little or no collateral ventilation (assessed using the Chartis System) treated with the Zephyr EBV experienced a 17 percent improvement in FEV₁ compared to the control group. EBV-treated patients also experienced improved exercise tolerance, with a 40-meter increase over the control group in the Six Minute Walk Test (6MWD), and improved quality of life, with a 10-point improvement in the St. Georges Respiratory Questionnaire (SGRQ) score over the control group. The results also showed that 97 percent of EBV subjects experienced target lobe volume reduction, indicating effective occlusion of the target lobe following EBV placement.

[Professor Ralf Eberhardt](#), MD, of the [Thoraxklinik](#) at the University of Heidelberg, and co-principal investigator of the IMPACT study, also presented the results at the 26th International Congress of the European Respiratory Society (ERS) on September 4.

"Endobronchial valve treatment has previously shown definitive benefits in patients with heterogeneous disease; we wanted to see if patients with homogeneous emphysema could also benefit from this proven, minimally-invasive approach for lung volume reduction. In the IMPACT study, we found that EBV treatment resulted in statistically and clinically significant improvements versus controls in pulmonary function, exercise capacity and quality of life in patients with severe homogeneous emphysema and negative collateral ventilation," said Professor Eberhardt.

"The IMPACT results show that selecting the right patient for endobronchial valve treatment is now simpler. We should focus on patients with hyperinflation and the absence of collateral ventilation, rather than on the homogeneity or heterogeneity of the disease," said [Associate Professor Arschang Valipour](#), MD, FCCP, of the [Ludwig-Boltzmann-Institute for COPD and Respiratory Epidemiology](#) at Otto-Wagner-Spital in Vienna, Austria, lead author of the paper and co-principal investigator of the IMPACT study.

According to the authors, "given the very limited treatment options available for this particular patient population, most notably limitations beyond medical therapy, EBV therapy should be considered in these patients."

The Zephyr® EBV is a tiny, one-way valve placed in the lungs to block airflow to diseased regions in order to achieve lung volume reduction. The Chartis System is a proprietary assessment system utilized immediately prior to the Zephyr EBV procedure to identify patients with low or no collateral ventilation, who are the most likely to respond to the treatment. More than 12,000 patients globally have undergone Zephyr EBV placements. To view a video of the Zephyr EBV procedure, click [here](#).

"These results prove that a substantially broader range of patients can benefit from the Zephyr Endobronchial Valve than previously estimated," said [Pulmonx Chief Executive Officer Glen French](#). "As the most proven minimally invasive lung volume reduction procedure for severe emphysema, the Zephyr EBV now offers hope to a new group of patients who currently have very few therapeutic options."

About Pulmonx

Based in Redwood City, California, and Neuchâtel, Switzerland, Pulmonx is an interventional pulmonology company focused on developing life-changing, cost-effective technologies that improve the lives of patients suffering from lung disease worldwide. For more information, visit www.pulmonx.com.

The Zephyr® EBV is an investigational device in the United States. Limited by U.S. law to investigational use.

Media Contact:

Meghan Oreste
Pulmonx Corporation
617-823-1441

moreste@pulmonx.com

Investor Contact:

Brian Johnston

Gilmartin Group LLC

631-807-1986

Investors@pulmonx.com

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