



First Prospective, Randomized Controlled Study Using the Chartis System to Select Patients Confirms Clinical Superiority of Zephyr® EBV Therapy over Medical Management in Treating Emphysema

December 9, 2015

Redwood City, Calif. – December 9, 2015 – Pulmonx Corporation, a leader in interventional pulmonology, announced online publication today of results from the independent, randomized, controlled STELVIO trial in the *New England Journal of Medicine*.¹ The trial demonstrated statistically and clinically significant outcomes in lung function, exercise capacity and quality of life in severe emphysema patients identified with the Chartis System, Pulmonx's proprietary assessment system, and treated with the Zephyr® Endobronchial Valve (EBV), when compared to those receiving standard medical management.

The STELVIO trial is the first randomized, controlled trial of Zephyr® EBV therapy using the Chartis System to identify patients most likely to benefit. It is also the first prospective trial to demonstrate that Zephyr® EBV therapy can benefit a broad range of advanced stage emphysema patients, including those with heterogeneous disease, where emphysema is isolated to specific areas of the lungs, and homogeneous disease, where emphysema is distributed evenly throughout the lungs. The trial was performed independently of Pulmonx.

In the STELVIO trial, 68 patients were confirmed with the Chartis System to be likely responders to Zephyr® EBV therapy, and randomized to either EBV therapy or medical management. In patients who received EBV therapy, tiny one-way valves were placed in the lungs to block airflow to diseased regions with the goal of improving breathing.

At six months, compared to the medical management group, the EBV group had statistically and clinically greater improvements in pulmonary function (FEV1 change % predicted, EBV vs Control: 20.9% vs 3.1%; $p=0.001$), exercise capacity (6 Minute Walk Test, EBV vs Control: +19.6% vs -3.6%; $p<0.001$) and quality of life (SGRQ score, EBV vs Control: -21.8 vs -7.6; $p<0.001$). Also, a significantly greater number of patients in the EBV group responded to treatment. At the end of six months, control patients that crossed over to receive EBV therapy gained benefits similar to the original EBV-treated group.

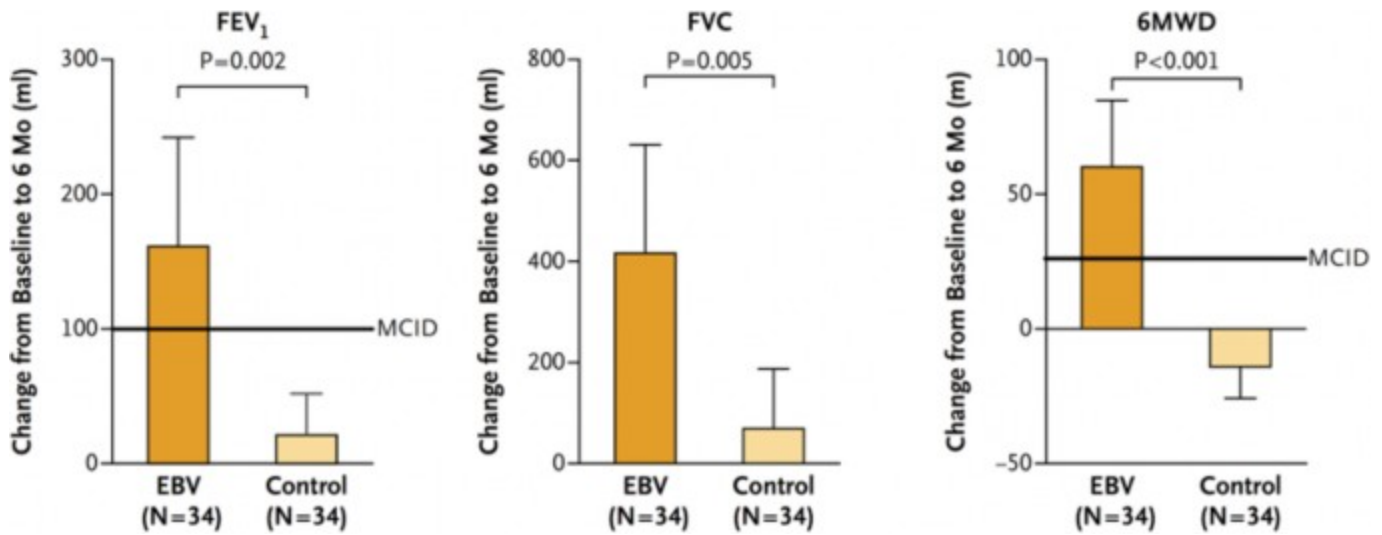
The STELVIO trial was led by Karin Klooster and Dirk-Jan Slebos of the Department of Pulmonary Diseases and the Groningen Research Institute for Asthma and COPD, University Medical Center Groningen, The Netherlands. The trial was funded by a Dutch government grant from ZonMW and the University Medical Center Groningen, The Netherlands.

"When we select patients with the Chartis System, endobronchial valve treatment provides improved lung function, exercise capacity, and quality of life," said Karin Klooster, lead author of the publication. "When we identify the right patients for treatment, the improvements can be life-changing," said Principal Investigator Dr. Dirk-Jan Slebos.

"The STELVIO study provides independent confirmation that a broad range of patients with advanced emphysema have a high likelihood of achieving clinically meaningful benefits from Zephyr® EBV therapy when a systematic approach is followed and careful patient selection is performed using the Chartis System," said Pulmonx Chief Executive Officer Glen French.

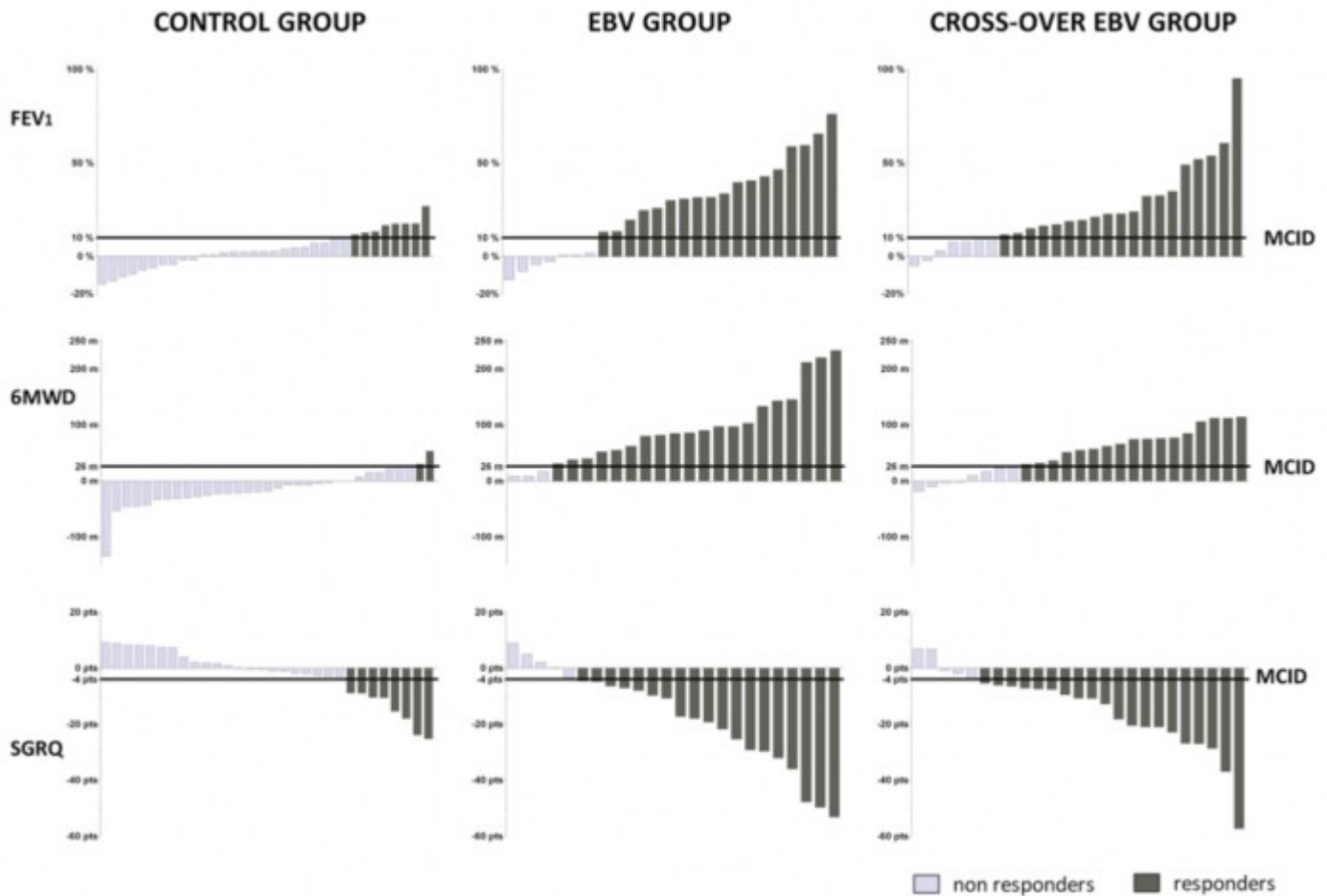
The Zephyr® EBV is a minimally-invasive treatment for severe emphysema that has been proven in over a decade of clinical experience to significantly improve the lung function, exercise tolerance and quality of life for patients receiving treatment. The Chartis System is utilized prior to the procedure to identify likely responders. In the procedure, tiny, one-way valves are placed in the lungs to block airflow to diseased regions to achieve lung volume reduction. As a result, the remaining healthy regions may function more efficiently, enabling better breathing and an improved quality of life for patients who can then perform more activities of daily life. Zephyr® EBVs have been implanted globally in more than 10,000 patients.

Primary Outcomes in the Intention-to-Treat Population



Shown are primary outcomes in the intention-to-treat population, according to the assigned study group (endobronchial valve group or control group). Horizontal lines represent the minimal clinically important difference (MCID) for the following outcomes: forced expiratory volume in 1 second (FEV₁), an increase of 100 ml, and 6-minute walk distance (6MWD), an increase of 26 m. T bars indicate 95% confidence intervals, and FVC denotes forced vital capacity.

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EBV denotes endobronchial valve. One bar represents a patient. Light-grey colored bars represent the patients who were not reaching the minimal clinically important difference (MCID). Dark-grey colored bars represent the patients who did reach the MCID. FEV₁: forced expiratory flow in 1-second; 6MWD: 6 minute walk test distance; SGRQ: St. George's Respiratory Questionnaire, a measurement of quality of life.

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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 \[www.pulmonx.com\]\(http://www.pulmonx.com\).](#)

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

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