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Clinical Research Summary
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IMPROVED OUTCOMES FOR BRONCHIECTASIS MAY BE SUSTAINED THREE YEARS AFTER HFCWO THERAPY¹

OVERVIEW

Data presented at the American Thoracic Society 2021 meeting evaluated the long-term clinical and economic outcomes of High Frequency Chest Wall Oscillation (HFCWO) therapy in adult non-cystic fibrosis bronchiectasis patients. Prior data has demonstrated that initiation of HFCWO therapy for bronchiectasis patients significantly improved disease-specific clinical outcomes within 12 months of starting treatment. This included a 66% reduction in acute bronchiectasis exacerbations (P=0.0073) and a 66% reduction in disease-specific inpatient hospitalizations (P=0.0043).²

METHODS

This retrospective pre-post cohort study was conducted using the IQVIA PharMetrics[®] Health Plan Claims Database. The study evaluated outcomes, resources and costs for bronchiectasis patients receiving HFCWO (1st claim=Index date) between January 1, 2009 and November 30, 2018. Criteria were measured in the 12-month pre- and out to 3-year post-index periods.

RESULTS

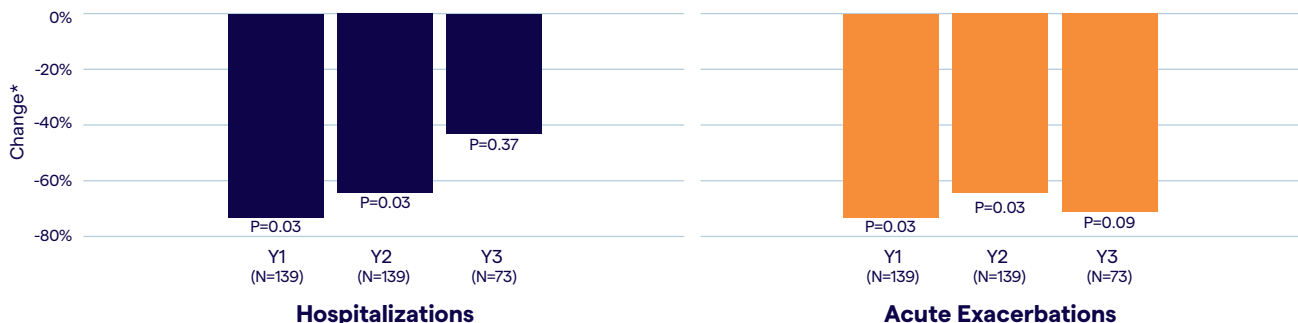
One hundred thirty-nine and 73 subjects met 2- and 3-year criteria, respectively. The mean age of the cohort was 55.8 years and 69.9% were female. 61% had COPD and 53.7% had asthma. 54% had a high risk Bronchiectasis Aetiology and Comorbidity Index (BACI) score.

HIGHLIGHTS

HFCWO may sustain improvements in clinical and economic outcomes for bronchiectasis patients sustained 3 years after receiving therapy:¹

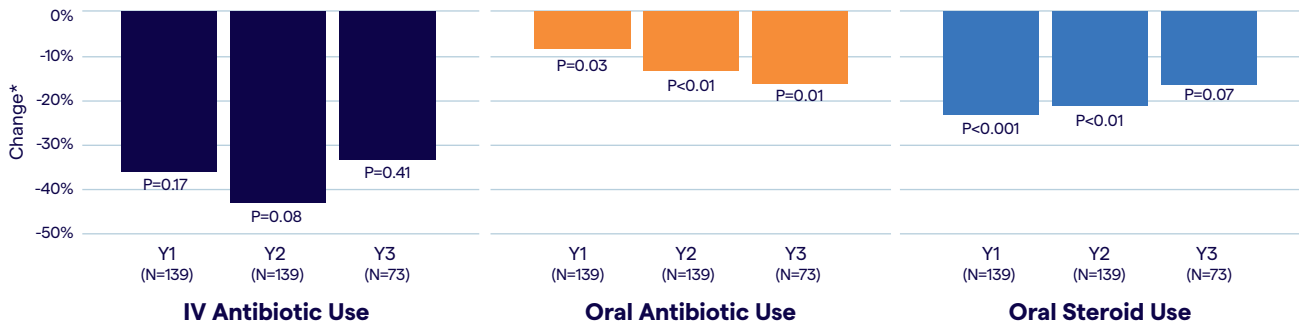
- 43% reduction in disease-specific hospitalizations
- 71% reduction in disease-specific acute exacerbations
- 16% reduction in all-cause oral antibiotic and steroid use
- 33% reduction in all-cause IV antibiotic use
- 68% reduction in disease-specific costs

REDUCTION IN PROPORTION OF DISEASE-SPECIFIC OUTCOMES AFTER INITIATION OF HFCWO THERAPY



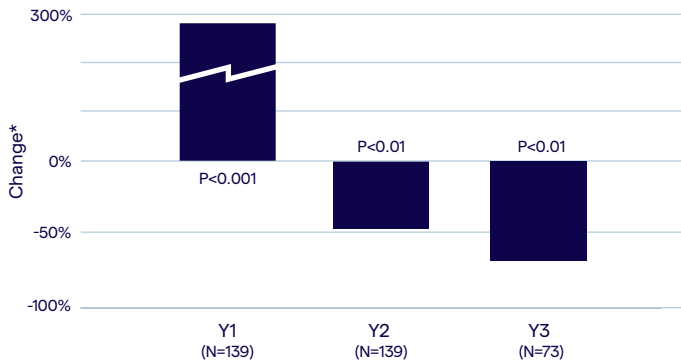
* Reduction from baseline, the 12 months prior to initiation of HFCWO therapy.

REDUCTION IN PROPORTION OF MEDICATIONS USED (ALL CAUSE) AFTER INITIATION OF HFCWO THERAPY



* Reduction from baseline, the 12 months prior to initiation of HFCWO therapy.

REDUCTION IN TOTAL MEAN DISEASE-SPECIFIC COSTS



* Change from baseline, the 12 months prior to initiation of HFCWO therapy. Increase in first-year cost is likely a result of device costs.

NOTE: Total mean costs include HFCWO device cost (typically paid in a 13-month rental period).

The study found a significant long-term reduction in disease-specific costs as a result of reduced hospitalizations, physicians office visits, antibiotic prescriptions, as well as reduced bronchoscopy, laboratory, and radiology utilization. Although the first year showed a cost increase following initial device purchase, the next two years indicated reductions.

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References

- Basavaraj A, Shah D, DeKoven M, et al. A Pre-Post Analysis Assessing the 3-Year Long-Term Impact of High Frequency Chest Wall Oscillation Therapy on Clinical Outcomes, Healthcare Cost and Utilization in Adult Patients with Non-Cystic Fibrosis Bronchiectasis in the U.S. [Abstract]. Am J Respir Crit Care Med. 2021;203:A3944 and poster presented at ATS 2021 (Hillrom reference APR219401).
- Basavaraj A, DeKoven M, Shah D, et al. Impact of High Frequency Chest Wall Oscillation on Clinical Outcomes and Healthcare Resource Utilization in Adult Patients with Non-Cystic Fibrosis Bronchiectasis in the United States: A Pre-Post Cohort Analysis [Abstract]. American Journal of Respiratory and Critical Care Medicine 2020;201:A7758.

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