

CLEARING THE  
WAY FOR  
BETTER DAYS™



**Hillrom™**

The Vest®  
Airway Clearance System

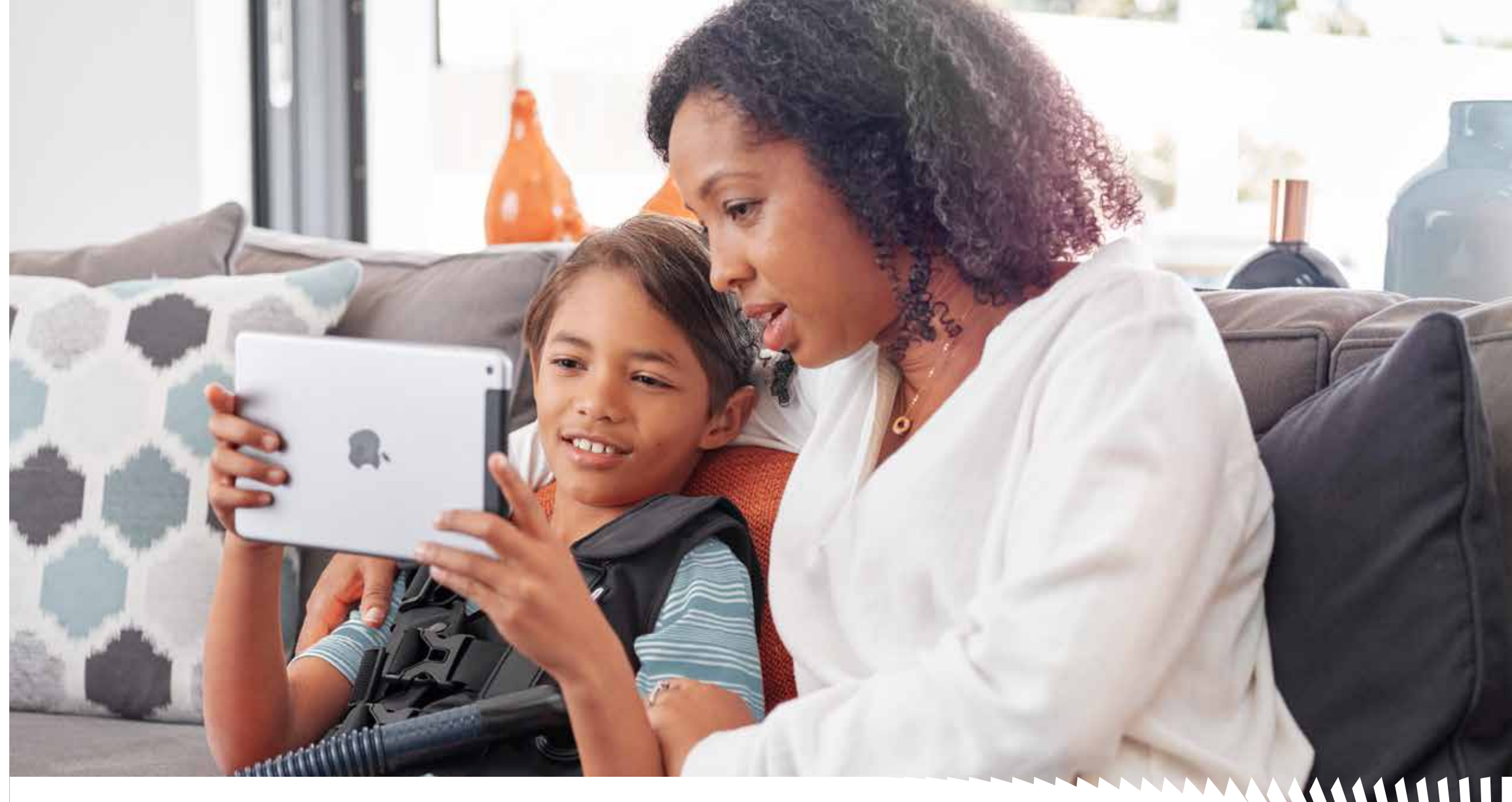
# THE NEED FOR EFFECTIVE AIRWAY CLEARANCE THERAPY

For patients with chronic respiratory disease, the therapy they receive at home makes a critical difference in their health and quality of life. Their courage and determination is what drives us to develop the most studied airway clearance therapy.

We know patients who need airway clearance, like those who have bronchiectasis, neuromuscular disease or cystic fibrosis, may be at higher risk for retained secretions. These secretions can contribute to increased rates of respiratory infection and hospitalizations and reduced lung function.<sup>1-4</sup>

Patients who have the following may benefit from airway clearance therapy:

- Evidence or a suggestion of retained secretions
- Difficulty with secretion clearance
- Presence of atelectasis caused by mucus plugging



## The Vest® Airway Clearance System

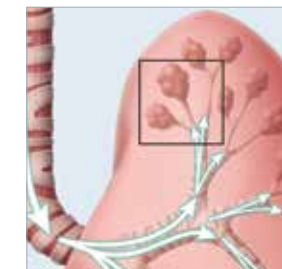
We specifically designed The Vest® Airway Clearance System, Model 105 to thin and mobilize retained secretions from the airways — a critical component to airway clearance.

For the respiratory health needs of your patients The Vest® System comes with our signature service.

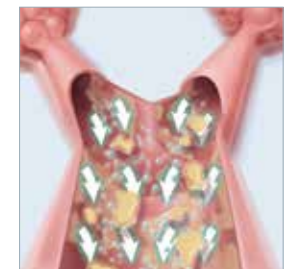
- Reimbursement support services
- In-home training
- Outcomes monitoring
- 24/7 customer service and product support
- HCP educational programs

### THE VEST® AIRWAY CLEARANCE SYSTEM REPRESENTS:

- A high frequency chest wall oscillation (HFCWO) device designed to create cough-like forces to help thin and loosen secretions adhering to lung tissue.<sup>5-10</sup>
- A therapy that generates airflow to help mobilize retained secretions from the small to the large airways, where they can be coughed out or suctioned.
- Our commitment to bringing the most advanced technology in HFCWO to your patients.



**High frequency oscillations are delivered to the airways to loosen secretions**



**Accelerated expiratory airflow thins and mobilizes secretions to the larger airways where they can be cleared by coughing or suctioning.**

# BROADLY STUDIED, CLINICALLY PROVEN

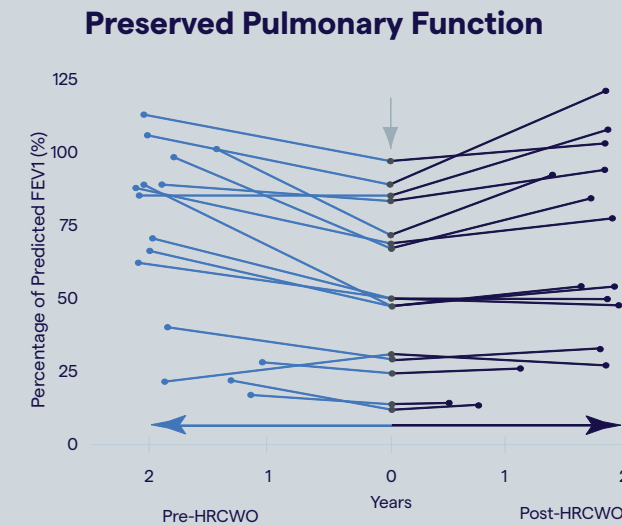
## Gold Standard Therapy

The Vest® Airway Clearance System provides a clinically proven therapy for chronic respiratory disease<sup>11-13</sup> and is the most broadly studied HFCWO device with more than 60 peer-reviewed clinical articles.\*

\* Clinical studies with patients using HFCWO therapy as listed in a PubMed search through 2019. Includes HFCWO devices from Hillrom, Electromed, International Biophysics Corporation and Respiratory Technologies, Inc. On file at Hillrom, Inc.



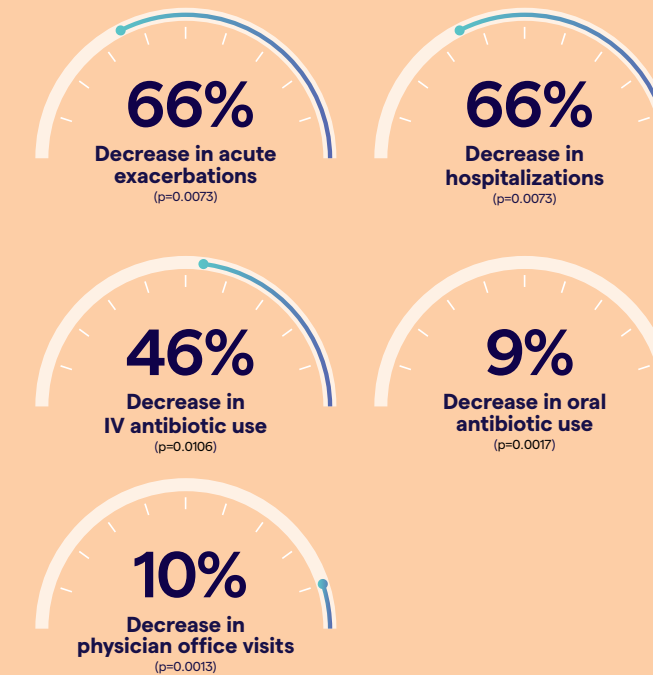
## Cystic Fibrosis



Results from a four year clinical study comparing chest physiotherapy (CPT) to The Vest® System showed improvement in FVC and FEV1 regression line slopes in 94% of CF patients who used The Vest® Airway Clearance System after two years.<sup>11</sup>

## Bronchiectasis

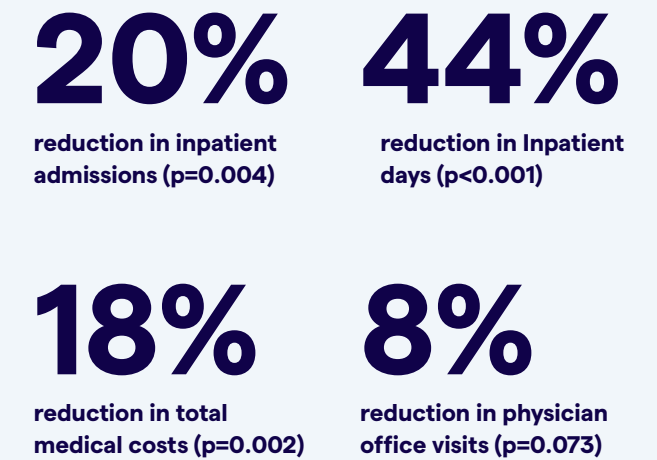
Patient outcomes using HFCWO (pre- and post- HFCWO use)



Analysis of 255 non-cystic fibrosis bronchiectasis patients who had received HFCWO therapy between 2009 and 2017, compared clinical and economic outcomes within 12 months of starting treatment. Results showed initiation of HFCWO therapy significantly improved clinical and economic outcomes.<sup>12</sup>

## Neuromuscular Disease

Neuromuscular patient outcomes (pre- and post-HFCWO use)



Analysis of 426 neuromuscular disease patients who received HFCWO therapy between 2007 and 2011, compared health care claims before and after HFCWO therapy intervention. Results of the study showed total medical costs, hospitalizations, and pneumonia claims were reduced after receiving HFCWO.<sup>13</sup>

The Vest® Airway Clearance System is not intended to treat any specific underlying disease or condition, but rather to provide Airway Clearance Therapy. The information provided in this document is for educational purposes only and is not intended to serve as reimbursement advice. Physicians have prescribed The Vest® Airway Clearance System for patients with the conditions noted above. Numerous clinical studies document the effectiveness of The Vest® Airway Clearance System in mobilizing secretions.

## Therapy Tailored for Your Patient

The Vest® Airway Clearance System uses HFCWO technology developed for your patients. Predictable performance, garment style versatility and an option for clinicians and patients to be connected in care via the Hillrom™ Connex® Health Portal, are all part of The Vest® System.



### GARMENT VERSATILITY

- Comfortable: C3® Garment Line is breathable and soft to the touch
- Convenient: Machine washable, dryable and its fabric protector repels stains
- Colorful: Cashmere Rose, Coastal Blue, Calming Black, Color Me Purple, Cool Camo, and Cute Camo
- The Wrap Garment Line offers added options for size and versatility.

### ON-THE-GO ACCESSORIES

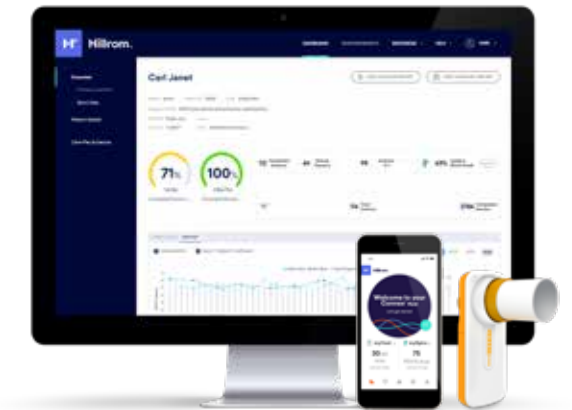
- Roller bag is lightweight and designed to fit in most airline overhead storage compartments
- One-bag system minimizes checked baggage issues when traveling
- Air hoses use simple, press-and-twist action requiring minimal dexterity and lock to prevent separation during treatment



## Connected Care for Airway Clearance

The Vest® System allows for therapy data connectivity with the Hillrom™ Connex® Patient App and Health Portal. You have quick access to monitor and trend patients' vest therapy usage and at-home spirometry. Using the Smart One® spirometer, patients' at-home test results are automatically saved in the Connex App and Health Portal. The Smart One spirometer\* is available for purchase through Hillrom with no medical prescription required.

\* Smart One is intended for home use. The device is designed for children greater than five years of age, adolescent and adult subjects.



## Predictable Performance

- Uniquely designed airflow generator delivers comfortable, consistent air volume resulting in predictable airflow that increases as the frequency increases<sup>14</sup>
- Multiple programming options for prescription flexibility and is available in several languages
- Cough Pause® feature reminds patient to cough
- Reduces pressure in the inflatable garment when paused to aid deep breathing

## ABOUT HILLROM

Hillrom is a global medical technology leader whose 10,000 employees have a single purpose: enhancing outcomes for patients and their caregivers by advancing connected care. Around the world, our innovations touch over 7 million patients each day. They help enable earlier diagnosis and treatment, optimize surgical efficiency and accelerate patient recovery while simplifying clinical communication and shifting care closer to home. We make these outcomes possible through connected smart beds, patient lifts, patient assessment and monitoring technologies, caregiver collaboration tools, respiratory care devices, advanced operating room equipment and more, delivering actionable, real-time insights at the point of care. **Learn more at [hillrom.com](https://www.hillrom.com).**



**Hillrom**<sup>TM</sup>

For more information about products or services, please contact your Hillrom sales representative or Hillrom customer service at 1-800-426-4224.

**hillrom.com**

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### References

- <sup>1</sup> Barker AF. (2002). Bronchiectasis. *N Engl J. Med*, 346, 1383-1393.
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- <sup>11</sup> Warwick W, Hansen L. The long-term effect of high-frequency chest compression therapy on pulmonary complications of cystic fibrosis. *Pediatr Pulmonol* 1991; 11: 265-271.
- <sup>12</sup> 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. *ATS* 2020. <https://www.abstractsonline.com/pp8/#1/8998/presentation/9070>
- <sup>13</sup> Lechtzin N, Wolfe LF and Frick KD. The Impact of High-Frequency Chest Wall Oscillation on Healthcare Use in Patients with Neuromuscular Diseases. *Ann Am Thorac Soc* 2016; 13 (6);904-9. DOI: 10.1513/AnnalsATS.201509-597OC.
- <sup>14</sup> Independent lab testing analyzed and compared average airflows at the mouth generated by high frequency chest wall oscillation (HFCWO) therapy in 10 subjects using home care garments. Airflows measured at commonly prescribed medium pressures (50% of maximum) at multiple therapy frequencies (5, 10, 15, and 20 Hz). Test data and reports on file at Hill-Rom, Inc.

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