

Medical Coverage Policies

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High-frequency Chest Compression System - PREAUTH

EFFECTIVE DATE	09/27/2000	LAST UPDATED	08/17/2010
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Prospective review is recommended/required. Please check the member agreement for preauthorization guidelines.

Description:

Patients with respiratory disorders such as cystic fibrosis, bronchiectasis, and diffuse panbronchiolitis have excessive respiratory secretions and impaired airway clearance. Neuromuscular disease (e.g., muscular dystrophy, spinal muscular atrophy, amyotrophic lateral sclerosis, multiple sclerosis) may also result in a patient's inability to effectively clear mucus from the airways. Blocked airways result in decreased oxygenation and may result in partial or complete lung collapse. Effective airway clearance is critical for treatment of these respiratory and neuromuscular disorders.

Postural drainage therapy (PDT), also known as chest physiotherapy, is the standard of care for mucus clearance. PDT uses postural drainage in various positions, percussion, vibration, compression, deep breathing, and coughing to loosen and move secretions out of the lungs. A competent caregiver is required to perform conventional chest physiotherapy. In situations when a caregiver is unavailable or unable to perform chest physiotherapy, alternative methods may be used.

A high-frequency chest compression system is an oscillatory device designed to provide self-administered airway clearance. These systems provide chest compression using an inflatable vest connected to an air-pulse generator by large-bore tubing. The air-pulse generator creates inflates and deflates the vest, compressing and releasing the chest wall to create airflow within the lungs. The vibrations help loosen and mobilize lung secretions.

Medical Criteria:

Prospective review is required for BlueCHiP for Medicare and BlueCHiP for Rite Care members and recommended for all other lines of business.

Use of a high-frequency chest compression system is considered medically necessary for patients who have one of the following medical conditions:

- Cystic fibrosis; or
- Extensive bronchiectasis secondary to another cause; or
- Neuromuscular impairment resulting in poor mucociliary clearance causing recurrent pneumonia or other severe respiratory disease in which mucociliary clearance is causing significant lung disease.

AND

One of the following conditions exists:

- **Child:** The family or other caregiver is not physically able to perform chest percussion, or the child cannot be positioned properly due to a medical rather than behavioral condition (e.g., GERD).
- **Adult:** There is no willing caregiver.
- Well-documented failure of standard treatments to adequately mobilize retained secretions.

Policy:

A high-frequency chest compression system is considered medically necessary for patients who meet the medical criteria above. All other uses are considered not medically necessary. Prospective review is recommended/required.

If approved, the air-pulse generator will be rented for a period of six months. At the end of the sixth month, the ordering physician must notify the Plan of the patient's response and compliance with the device. Compliance is defined as use of the vest for a minimum of three to four times per week, 20 minutes per session. Subject to this review, the rental will be extended through the end of the rental period (a total of 10 months).

Coverage is not extended for respiratory therapy while the member has the high-frequency chest compression system, as this is considered to be a duplicate service.

Coverage is not provided for any training and outcomes monitoring program. This program is designed to evaluate compliance with therapy and the impact of the device on a patient's health status and quality of life.

Coverage:

Benefits may vary among groups. Please refer to the appropriate member certificate/subscriber agreement/Rite Care contract for applicable durable medical equipment benefits/coverage.

Coding:

E0483 High-frequency chest wall oscillation air-pulse generator system, (includes hoses and vest), each

A7025 High-frequency chest wall oscillation system vest, replacement for use with patient-owned equipment, each

A7026 High-frequency chest wall oscillation system hose, replacement for use with patient-owned equipment, each

Also Known As:

ThAIRapy Vest

ABI Vest

High-frequency chest wall compression vest

Vest Airway Clearance System

Intrapulmonary Percussive Ventilation (IPV)

IPV (Intrapulmonary Percussive Ventilation)

Published:

Policy Update, September 1997

Policy Update, June 2000: New HCPCS codes

Policy Update, November 2000

Provider Update, July 2009

Provider Update, October 2010

References:

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Cystic Fibrosis Foundation (1997) *Clinical practice guidelines for cystic fibrosis*. Cystic Fibrosis Foundation. Bethesda, MD

Arens, R, Gozal, D, Omlin, KJ, et al Comparison of high frequency chest compression and conventional chest physiotherapy in hospitalized patients with cystic fibrosis. *Am J Respir Crit Care Med* 1994;150,1154-1157

Blue Cross Blue Shield Association, Medical Policy Reference Manual, Policy 1.01.1, Oscillatory Devices for the Treatment of Cystic Fibrosis and Other Respiratory Disorders; 02/2004.

Mayo Foundation for Medical Education and Research (MFMER), *Cystic Fibrosis*, 04/2004, available at www.mayoclinic.com/invoke.cfm?id=DS00287, accessed 02/25/05

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