



**HIGH FREQUENCY CHEST WALL  
OSCILLATION DEVICES  
HS-036**



*Harmony Behavioral Health, Inc.*

*Harmony Behavioral Health of Florida, Inc.*

*Harmony Health Plan of Illinois, Inc.*

*HealthEase of Florida, Inc.*

*'Ohana Health Plan, a plan offered by  
WellCare Health Insurance of Arizona, Inc.*

*WellCare Health Insurance of Illinois, Inc.*

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*WellCare of New York, Inc.*

*WellCare of Ohio, Inc.*

*WellCare of Texas, Inc.*

*WellCare Prescription Insurance, Inc.*

**High Frequency Chest Wall  
Oscillation Devices**

**Policy Number: HS-036**

**Original Effective Date: 8/7/2008**

**Revised Date(s): 8/31/2009; 8/20/2010;  
8/2/2011**

**DISCLAIMER**

The Clinical Coverage Guideline is intended to supplement certain standard WellCare benefit plans. The terms of a member's particular Benefit Plan, Evidence of Coverage, Certificate of Coverage, etc., may differ significantly from this Coverage Position. For example, a member's benefit plan may contain specific exclusions related to the topic addressed in this Clinical Coverage Guideline. When a conflict exists between the two documents, the Member's Benefit Plan always supersedes the information contained in the Clinical Coverage Guideline. Additionally, Clinical Coverage Guidelines relate exclusively to the administration of health benefit plans and are NOT recommendations for treatment, nor should they be used as treatment guidelines. The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

**APPLICATION STATEMENT**

The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

## **BACKGROUND**

In normal, healthy individuals, clearance of secretions from the respiratory tract is accomplished primarily through ciliary action and the slight bias in respiratory action toward exhalation, with sighs and occasional coughs stimulated by ciliary irritation. A number of conditions such as cystic fibrosis (CF) and bronchiectasis can result in inadequate airway clearance. These secretions accumulate in the bronchial tree, occluding small passages and interfering with adequate gas exchange in the lungs. They also serve as a culture medium for pathogens, leading to a higher risk for chronic infections and deterioration of lung function.

Standard therapy to enhance mucus clearance consists of chest physical therapy (CPT), including percussion of the thorax and postural drainage, forced expiratory maneuvers, huffing, and coughing. Standard CPT is a time-consuming process requiring frequent sessions and strict patient compliance to ensure effectiveness. CPT has been shown to result in improved respiratory function and has been an important part of treatment regimens for patients with inadequate airway clearance for more than 40 years. Postural drainage and percussion is usually taught to family members so that patients with chronic disease can continue to receive the therapy at home when needed. For hospitalized patients, two or three 20- to 30-minute treatments are provided by respiratory therapists each day. Since this highly labor-intensive activity requires the daily intervention of a trained caregiver, additional methods of enhancing airway clearance have been studied since the 1990s.

In recent years, it has been noted that vibration of the air column in the conducting airways can aid in the removal of secretions in vulnerable patients. One way in which this may be accomplished is to directly vibrate the chest wall at frequencies higher than the normal respiratory rate during deep breathing and coughing exercises. The vibratory and shearing forces are thought to lower mucus viscosity. High-frequency chest wall compression (HFCWC) can be delivered using a device that fits over the patient's chest and back. The device consists of an inflatable vest connected by two tubes to a small air-pulse generator. The air-pulse generator rapidly inflates and deflates the vest, compressing and releasing the chest wall up to 20 times per second (Hayes, 2004).

High-frequency chest wall compression devices include but are not limited to the following: The Vest™ Airway Clearance System formally known as ThAIRapy® Vest or ABI vest (Hill-Rom Services, Inc.), The Medpulse™ Respiratory Vest System and The Smartvest® Airway Clearance System (Electromed Inc., Minnetonka, MN), The Incourage™ System (RespirTech, Inc.).

## **POSITION STATEMENT**

The use of high frequency chest wall oscillation devices **is considered medically necessary** if the following criteria are met:

1. There is a diagnosis of 277.00 - 277.09 Cystic Fibrosis; **OR**,
2. There is a diagnosis of 494.0 - 494.1 Bronchiectasis
  - a. Characterized by daily productive cough for at least 6 continuous months or frequent (more than two a year) exacerbations requiring antibiotic therapy, **AND**
  - b. Confirmed by high resolution, spiral, or standard CT scan.

**OR;**

1. There is **ONE** of the following neuromuscular disease diagnoses:
  - **V12.02** Post-poliomyelitis
  - **271.0** Acid maltase deficiency; Pompe's Disease; Glycogenosis Type II
  - **335.8** Anterior horn cell diseases ;

- **340** Multiple sclerosis;
- **344.01 - 344.04** Quadriplegia;
- **359.1** Hereditary muscular dystrophy;
- **359.2** Myotonic disorders;
- **359.89** Other myopathies;
- **519.4** Paralysis of the diaphragm

**AND,**

2. There must be well-documented failure of standard treatments to adequately mobilize retained secretions.

The use of high frequency chest wall oscillation devices is **contraindicated and NOT a covered benefit** in members with:

1. **959.01 - 959.09** Unstable head and neck injury; **OR,**
2. **459.0** Active hemorrhage with hemodynamic instability; **OR,**
3. A history of **512.8** - pneumothorax, **786.3** - hemoptysis, or **427.5** - cardiac arrest in the past 30 days.

## **CODING**

**CPT®\*Codes** - No applicable codes

**ICD-9-CM Procedure Codes** - No applicable codes

### **Covered HCPCS Codes**

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

+Note: Coverage is limited to those specific indications outlined in the Coverage Policy section of this document.

### **Covered ICD-9-CM Diagnosis Codes**

- 271.0** Acid maltase deficiency; Pompe's Disease; Glycogenosis Type II  
**277.00 - 277.09** Cystic fibrosis  
**335.8** Anterior horn cell diseases ;  
**340** Multiple sclerosis;  
**344.01 - 344.04** Quadriplegia;  
**359.1** Hereditary muscular dystrophy;  
**359.2** Myotonic disorders;  
**359.89** Other myopathies;  
**494.0 - 494.1** Bronchiectasis  
**519.4** Paralysis of the diaphragm  
**V12.02** Post-polio;

**Non Covered ICD-9-CM Diagnosis Codes as indicated above.**

<b>427.5</b>	Cardiac Arrest
<b>459.0</b>	Active hemorrhage with hemodynamic instability
<b>512.8</b>	Pneumothorax
<b>786.3</b>	Hemoptysis
<b>959.01 - 959.09</b>	Unstable head and neck injury

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**REFERENCES**

**Peer Reviewed**

1. Hayes Directory. High-Frequency Chest Wall Compression for Diseases Other Than Cystic Fibrosis. April 14, 2005.
2. Hayes Directory. High-Frequency Chest Wall Compression for Cystic Fibrosis, June 22, 2004.

**Government Agencies, Professional and Medical Organizations**

N/A

**Other**

1. CIGNA Government Services and other Local Coverage Determination for High Frequency Chest Wall Oscillation Devices (L12934). July 1, 2007 Updated 2009.
2. UnitedHealthcare Technology Assessment. High-Frequency Chest Wall Compression and Respiratory Devices. August 16, 2007.

**HISTORY AND REVISIONS**

<b>Date</b>	<b>Action</b>
12/1/2011	<ul style="list-style-type: none"><li>• New template design approved by MPC.</li></ul>
8/2/2011	<ul style="list-style-type: none"><li>• Approved by MPC. No changes.</li></ul>