



Department of
HUMAN SERVICES

High Frequency Chest Wall Oscillation

Iowa Medicaid Program:	Prior Authorization	Effective Date:	2/12/2015
Revision Number:	1	Last Rev Date:	1/15/2021
Reviewed By:	Medicaid CAC	Next Rev Date:	1/21/2022
Approved By:	Medicaid Medical Director	Approved Date:	3/13/2018

Descriptive Narrative

High-frequency chest wall oscillation (HFCWO) is a form of chest physical therapy in which an inflatable vest is attached to a machine that vibrates it at high frequency. The vest vibrates the chest to loosen and thin mucus. The loosened secretions may require another intervention to be cleared from the airway.

Criteria

This criteria applies to the medical equipment and supplies needed for HFCWO treatment.

ALL 5 of the following must be met.

1. The member must have one of the following applicable diagnoses.
 - a. Cystic fibrosis.
 - b. Bronchiectasis - Confirmed by high resolution or spiral chest CT
 - 1) Daily productive cough for at least six months continuously, **OR**
 - 2) More than two exacerbations per year, requiring antibiotic therapy.
 - c. Chronic or recurrent atelectasis as demonstrated by X-ray or CT.
 - d. Neuromuscular diseases affecting the ability to cough or clear respiratory secretions with prior history of pneumonia or other significant worsening of pulmonary function, such as:
 - 1) Post-polio.
 - 2) Acid maltase deficiency.
 - 3) Anterior horn cell diseases.
 - 4) Multiple sclerosis
 - 5) Quadriplegia.
 - 6) Hereditary muscular dystrophy.
 - 7) Myotonic disorders.
 - 8) Other myopathies.
 - 9) Paralysis of the diaphragm.
 - 10) Amyotrophic lateral sclerosis.
 - 11) Spinal muscular atrophy; **AND**

2. **ONE** of the following must be documented.
 - a. Pulmonary function tests (PFTs) within the 12 months before the initiation of the vest demonstrate an overall significant decrease in lung function.
 - b. Increased frequency of hospitalizations for pulmonary issues, compared to the prior year **OR** three pulmonary hospitalizations within 1 year.
 - c. If a renewal or treatment has already started must demonstrate improvement in PFTs, or decrease in incidence of hospitalizations, exacerbations or antibiotic use; **AND**
3. **ALL** of the following, a.-e. must be well-documented:
 - a. Effective chest physiotherapy is required:
 - 1) There must be demonstrated presence of bronchopulmonary secretions with documented need for airway clearance - documentation of frequent respiratory infections should be indicated.
 - b. Manual CPT is unavailable, ineffective, or not tolerated. There should be documented failure of standard treatments (chest physiotherapy and, if appropriate, use of an oscillatory positive expiratory pressure device, or cough assist), or valid reasons why standard treatment cannot be performed. Examples of valid reasons why standard treatment cannot be performed may include **ANY** of the following.
 - 1) There are two or more individuals with cystic fibrosis, chronic bronchiectasis, or chronic neuromuscular disorder (meeting criteria above) in the family; **OR**
 - 2) The caregiver is unable (physically or mentally) to perform chest physical therapy at the required frequency; **OR**
 - 3) There is no available parental or partner resource to perform chest physical therapy; **OR**
 - 4) The member has a medical condition that precludes use of standard treatments.
 - 5) Age alone is not considered sufficient contraindication to any method of airway clearance.
 - c. Treatment by flutter device failed or is contraindicated.
 - d. Treatment by intrapulmonary percussive ventilation failed or is contraindicated.
 - e. A trial period is required to determine patient and family compliance. Sufficient and appropriate usage of the device during the trial period must be documented; **AND**
4. The prescriber is a pulmonologist; **AND**
5. None of the following apply. These conditions do not support medical necessity to HFCWO.
 - a. HFCWO is being used as an adjunct to chest physical therapy (CPT), or along with mechanical in/exsufflation device.
 - b. The member has COPD, or chronic bronchitis, unless accompanied by a diagnosis under #1.
 - c. HFCWO is being used prophylactically to prevent onset of respiratory symptoms.

- d. Contraindications exist for external manipulation of the thorax, as outlined by the American Association of Respiratory Care and contained in their clinical practice guidelines for postural drainage therapy, which include, but may not be limited to: unstable head or neck injury; active hemorrhage with hemodynamic instability; subcutaneous emphysema; recent epidural, spinal fusion or spinal anesthesia; recent skin grafts or flaps on the thorax; burns, open wounds, and skin infections of the thorax; recently placed transvenous or subcutaneous pacemaker; suspected pulmonary tuberculosis; lung contusion; bronchospasm; osteomyelitis of the ribs; osteoporosis; coagulopathy; and complaint of significant chest wall pain.
- e. HFCWO is not covered for convenience or to upgrade to newer technology when the current components remain functional.

Continued use of a HFCWO device is considered medically necessary when ongoing use, (that is, compliance with use) is documented at 6-month to 12-month intervals. (Note: For HFCWO devices with usage meters, documentation should reflect use, in general, at least 67 percent of the prescribed time.)

Coding

Codes:

94669, Mechanical chest wall oscillation to facilitate lung function, per session
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
E0481, intrapulmonary percussive ventilation system and related accessories
E0483, high frequency chest wall oscillation air-pulse generator system, (includes hoses and vest), each
E0484
S8185

ICD-10 Codes:

E84.9 Cystic fibrosis, unspecified
E84.0 Cystic fibrosis with pulmonary manifestations
J47.0 Bronchiectasis with acute lower respiratory infection
J47.1 Bronchiectasis with (acute) exacerbation
J47.9 Bronchiectasis, uncomplicated
Q33.4 Congenital bronchiectasis

References

Local Coverage Determination (LCD) for High Frequency Chest Wall Oscillation Devices (L12739) Accessed 9/11/14 at:
https://www.noridianmedicare.com/dme/coverage/docs/lcds/current/high_frequency_chest_wall.htm.

Strickland SL, Rubin BK, Drescher GS, et al. AARC clinical practice guideline: effectiveness of nonpharmacologic airway clearance therapies in hospitalized patients. *Respir Care*. 2013; 58(12):2187-2193.

The Cystic Fibrosis Foundation,
http://www.cff.org/treatments/Therapies/Respiratory/AirwayClearance/#High-frequency_Chest_Wall_Oscillation Accessed 11/19/2014.

IAC 78.10(5)

Vest airway clearance systems. Payment will be approved for a vest airway clearance system when prescribed by a pulmonologist for a member with a diagnosis of a lung disorder if **ALL** of the following conditions are met:

- a. Pulmonary function tests for the 12 months before the initiation of the vest demonstrate an overall significant decrease in lung function.
- b. The member resides in an independent living situation or has a medical condition that precludes the caregiver from administering traditional chest physiotherapy.
- c. Treatment by flutter device failed or is contraindicated.
- d. Treatment by intrapulmonary percussive ventilation failed or is contraindicated.
- e. All other less costly alternatives have been tried.

Development of utilization management criteria may also involve research into other state Medicaid programs, other payer policies, consultation with experts and review by the Medicaid Clinical Advisory Committee (CAC). These sources may not be referenced individually unless they are specifically published and are otherwise applicable to the criteria at issue.

Criteria Change History			
Change Date	Changed By	Description of Change	Version
Signature			
Change Date	Changed By	Description of Change	Version
3/13/2018	Medical Director		1
Signature			
C. David Smith, MD			