

UPMC Health Plan POLICY AND PROCEDURE MANUAL

POLICY NUMBER: MP.066
REVISION DATE: 12/09
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SUBJECT: High Frequency Chest Wall Oscillation Devices
INDEX TITLE: Medical Management
ORIGINAL DATE: February 2007

This policy applies to the following lines of business: (Check those that apply.)

Commercial:					
HMO ()		POS ()		PPO ()	
Fully Insured ()		Self-funded/ASO ()		HSA ()	
Medicare Select ()		Medicare Supplement ()			
DPW-MA:					
Health Choices ()			Voluntary ()		All (X)
CMS-MA:					
OH ()		WV ()		PA ()	All (X) Other ()
HMO (X)	PPO (X)	Specialty Needs Plan (X)		Part D ()	PFFS (X) All ()
PID-CHIP:					
Free ()		Sub ()		Full ()	All (X)
APPLICABLE TO:					
Community Care ()		Work Partners ()			

I. POLICY

It is the policy of UPMC Health Plan to cover high frequency chest wall oscillation devices (HFCWO) when it is medically necessary and covered under the member's benefit plan. Coverage will be considered, after review on an individual basis, for the specific indications detailed in this policy.

Replacement supplies are covered when the criteria for the base device is met.

All denials are based on medical necessity and appropriateness as determined by a UPMC Health Plan Medical Director (Medical Director).

II. DEFINITIONS

N/A

III. PURPOSE

The purpose of this policy is to identify the criteria for use of the high frequency chest wall oscillation devices (HFCWO).

IV. SCOPE

This policy applies to various UPMC Health Plan departments as indicated by the Benefit and Reimbursement Committee. These include but are not limited to Medical Management, Benefit Configuration and Claims departments.

V. PROCEDURE

A. Medical Description

High Frequency Chest Wall Oscillation Devices (HFCWO) are also known as High Frequency Chest Compression (HFCC) Devices, ThAIRapy vests or The Vest™. High-frequency chest wall oscillation devices (HFCWO) devices assist members who have difficulty expelling bronchial secretions, essentially the same population of members requiring postural drainage (drainage of the middle and lower portions of the lungs positioned with the chest above the head).

HFCWO works under the theory that compression of the chest will induce airflow that dislodges mucus adherent to the bronchial walls. These devices consist of a high-frequency chest wall oscillator designed to enhance the mobilization of bronchial secretions. In some portions of the lung, airflows can be nearly or totally blocked by mucus plugs. The oscillating pressure pulse could move the plugs toward large-diameter airways, where they can be cleared more easily. Additional theories propose the triggering of thin mucus production, airway-dilating nitric oxide production, and higher air-outflow rates compared to inflow rates.

HFCWO systems consist of two main components: a vest worn by the patient and a pneumatic air-pulse generator that rapidly inflates and deflates the vest. The vest is made of non-stretch material and covers the thorax like a life jacket; two large-bore air hoses connect the vest to the generator. A hand/foot control can be used to start or stop the compression.

Some members with impaired ability to cough due to respiratory muscle weakness or pulmonary restriction have difficulty in clearing secretions from the lungs. These members are especially prone to secretion-related complications during upper respiratory tract infections or general anesthesia.

B. Specific Indications

High Frequency Chest Wall Oscillation Device may be appropriate where lesser measures for dislodging thick tenacious sputum/secretions have proven ineffective, unfeasible, or contraindicated:

- The member should have had trials of alternative methods of expectoration that have failed. Examples include: mucolytic agents, handheld flutter device, self-

controlled breathing techniques, conventional chest physical therapy consisting of postural drainage and percussion,
AND

- The member should have an adequate physiological cough reflex.

AND

The High Frequency Chest Wall Oscillation Device is considered medically necessary for the following conditions:

1. Cystic fibrosis
OR
 2. One (1) of the following:
 - Chronic bronchiectasis,
 - Ciliary dyskinesia syndrome,
 - Cavitating lung disease,
 - Other chronic conditions with thick tenacious sputum.
- AND
3. There is documented failure of standard treatments to adequately mobilize retained secretions.

C. Limitations

1. The device should be FDA approved for the age of the member.
2. It is not medically necessary for the member to use a HFCWO and a mechanical insufflation device at the same time.
3. **Absolute contraindications** include the following:
 - Unstabilized head or neck injury
 - Active hemorrhage with hemodynamic instability
 - Acute respiratory distress/failure.
4. **Relative contraindications** include the following:
 - Subcutaneous emphysema (gas within the tissue beneath the skin),
 - Recent epidural spinal infusion or spinal anesthesia
 - Recent placement of an indwelling venous catheter in the chest wall
 - Intravenous access to an indwelling venous catheter (members with established port sites can receive HFCWO if the sites are covered with padding.)
 - Recent skin grafts or flaps on the thorax
 - Burns, open wounds, or skin infections of the thorax
 - Recently placed transvenous or subcutaneous pacemaker
 - Suspected pulmonary tuberculosis
 - Recent abdominal surgery
 - Recent gastrostomy tube placement
 - Lung contusion
 - Rib fractures

- Acute bronchospasm
- Chest wall pain
- Osteomyelitis of the ribs
- Osteoporosis
- Coagulopathy.

D. Information Required for Review

In order for medical necessity to be established, adequate information must be furnished by the treating physician. Necessary information includes the following:

1. A physician's prescription or letter of medical necessity.
2. Documentation supporting the member's need for the HFCWO that includes:
 - The member's diagnosis, and
 - Documentation indicating information related to the disease process.
3. Documentation that rental trials of the HFCWO were attempted.
Note: Successful rental trials for three (3) months need to be documented prior to extensions.

E. Review Process

1. The Medical Management staff assigned to review obtains the clinical information to determine if there is adequate clinical information. If the case does not meet the established criteria, it is referred to a UPMC Health Plan Medical Director.
2. If referred, the Medical Director determines if the requested service is medically necessary and appropriate.
3. The Medical Management staff completes the review process and communicates the review decision according to the Timeliness of UM Decisions policy for the member's benefit plan.

F. Variations

N/A

G. Records Retention

Records Retention for UPMC Health Plan documents, regardless of medium are provided within the UPMC Health System Policy and as indicated in the UPMC Insurance Services Division Policy and Procedure.

H. References

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13. Scherer T. Barandun J. et al. Effect of High Frequency Oral Airway and Chest Wall Oscillation and Conventional Chest Physical Therapy on Expectoration in Patients with Stable Cystic Fibrosis. *Chest* 1998; 113; 1019-1027.
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15. Tricenturion, High Frequency Chest Wall Oscillation Devices, LCD No L12870, effective 7-1-2007.
16. NHIC Corp: High Frequency Chest Wall Oscillation Devices, LCD No L12870, effective 10-1-09.
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Disclaimer:

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