# Medical Policy:

## High Frequency Chest Wall Oscillation Devices and Intrapulmonary Percussive Ventilators

| POLICY NUMBER | LAST REVIEW |
|---|---|
| MG.MM.DM.09cC4 | September 8, 2023 |



## Definition

A high frequency chest wall oscillation device (HFCWOD) is an airway clearance device consisting of an inflatable vest connected by tubes to a small air-pulse generator.

## Guideline

Members are eligible for coverage of an HFCWOD when any of the following conditions/diagnoses are applicable:

1. Acid maltase deficiency
2. Amyotrophic lateral sclerosis
3. Anterior horn cell diseases
4. Bronchiectasis
5. Cystic fibrosis
6. Hereditary muscular dystrophy
7. Multiple sclerosis
8. Myotonic disorders
9. Other myopathies

10. Paralysis of the diaphragm
11. Post-polio
12. Quadriplegia
13. Any neuromuscular disease disorder with ineffective cough
14. Members with a gastrostomy tube and risk of aspiration if manual chest physical therapy (PT) is indicated on a case by case basis when other methods of daily chest PT have been tried and failed

Well-documented failure of standard treatments to adequately mobilize retained secretions must be made available to the Plan upon request.

## Limitations/Exclusions

High frequency chest wall oscillation devices are not covered for any conditions other than those listed above. Intrapulmonary percussive ventilators (IPV) (e.g., the Impulsator F00012) are considered experimental and investigational for all indications due to insufficient evidence of therapeutic value (including but not limited to bronchiectasis, chronic obstructive pulmonary disease [COPD], cystic fibrosis, neuromuscular conditions associated with retained airway secretions or atelectasis, and post-operative pulmonary complications).

## Procedure 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 |
| E0467 | Home ventilator, multi-function respiratory device, also performs any or all of the additional functions of oxygen concentration, drug nebulization, aspiration, and cough stimulation, includes all accessories, components and supplies for all functions |
| E0483 | High frequency chest wall oscillation system, with full anterior and/or posterior thoracic region receiving simultaneous external oscillation, includes all accessories and supplies, each |
| 94669 | Mechanical chest wall oscillation to facilitate lung function, per session |

## Diagnosis Codes

| | |
|---|---|
| A15.0 | Tuberculosis of lung |
| B91 | Sequelae of poliomyelitis |
| D81.810 | Biotinidase deficiency |
| D84.1 | Defects in the complement system |
| E84.0 | Cystic fibrosis with pulmonary manifestations |
| E84.11 | Meconium ileus in cystic fibrosis |
| G12.0 | Infantile spinal muscular atrophy, type I [Werdnig-Hoffman] |
| G12.1 | Other inherited spinal muscular atrophy |
| G12.20 | Motor neuron disease, unspecified |
| G12.21 | Amyotrophic lateral sclerosis |
| G12.22 | Progressive bulbar palsy |

| | |
|---|---|
| G12.23 | Primary lateral sclerosis |
| G12.24 | Familial motor neuron disease |
| G12.25 | Progressive spinal muscle atrophy |
| G12.29 | Other motor neuron disease |
| G12.8 | Other spinal muscular atrophies and related syndromes |
| G12.9 | Spinal muscular atrophy, unspecified |
| G14 | Postpolio syndrome |
| G35 | Multiple sclerosis |
| ~~G71.0~~ | ~~Muscular dystrophy~~ (incomplete code as of 10/01/2018) |
| G71.00 | Muscular dystrophy, unspecified |
| G71.01 | Duchenne or Becker muscular dystrophy |
| G71.02 | Facioscapulohumeral muscular dystrophy |
| G71.03 | Limb girdle muscular dystrophies |
| G71.031 | Autosomal dominant limb girdle muscular dystrophy |
| G71.032 | Autosomal recessive limb girdle muscular dystrophy due to calpain-3 dysfunction |
| G71.033 | Limb girdle muscular dystrophy due to dysferlin dysfunction |
| G71.034 | Limb girdle muscular dystrophy due to sarcoglycan dysfunction |
| G71.0340 | Limb girdle muscular dystrophy due to sarcoglycan dysfunction, unspecified |
| G71.0341 | Limb girdle muscular dystrophy due to alpha sarcoglycan dysfunction |
| G71.0342 | Limb girdle muscular dystrophy due to beta sarcoglycan dysfunction |
| G71.0349 | Limb girdle muscular dystrophy due to other sarcoglycan dysfunction |
| G71.035 | Limb girdle muscular dystrophy due to anoctamin-5 dysfunction |
| G71.038 | Other limb girdle muscular dystrophy |
| G71.039 | Limb girdle muscular dystrophy, unspecified |
| G71.09 | Other specified muscular dystrophies |
| G71.11 | Myotonic muscular dystrophy |
| G71.12 | Myotonia congenita |
| G71.13 | Myotonic chondrodystrophy |
| G71.14 | Drug induced myotonia |
| G71.19 | Other specified myotonic disorders |
| G71.2 | Congenital myopathies |
| G71.3 | Mitochondrial myopathy, not elsewhere classified |
| G71.8 | Other primary disorders of muscles |
| G72.0 | Drug-induced myopathy |
| G72.1 | Alcoholic myopathy |
| G72.2 | Myopathy due to other toxic agents |

| | |
|---|---|
| G72.89 | Other specified myopathies |
| G73.7 | Myopathy in diseases classified elsewhere |
| G82.50 | Quadriplegia, unspecified |
| G82.51 | Quadriplegia, C1-C4 complete |
| G82.52 | Quadriplegia, C1-C4 incomplete |
| G82.53 | Quadriplegia, C5-C7 complete |
| G82.54 | Quadriplegia, C5-C7 incomplete |
| J47.0 | Bronchiectasis with acute lower respiratory infection |
| J47.1 | Bronchiectasis with (acute) exacerbation |
| J47.9 | Bronchiectasis, uncomplicated |
| J98.6 | Disorders of diaphragm |
| M33.02 | Juvenile dermatomyositis with myopathy |
| M33.12 | Other dermatomyositis with myopathy |
| M33.22 | Polymyositis with myopathy |
| M33.92 | Dermatopolymyositis, unspecified with myopathy |
| M34.82 | Systemic sclerosis with myopathy |
| M35.03 | Sicca syndrome with myopathy |
| Q33.4 | Congenital bronchiectasis |

## References


Centers for Medicare and Medicaid Services. National Coverage Determination for Intrapulmonary Percussive Ventilator. July 1997. Available at: http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=229&ncdver=1&DocID=240.5&ncd_id=240.5&ncd_version=1&basket=ncd%25253A240%25252E5%25253A1%25253AIntrapulmonary+Percussive+Ventilator+%252528IPV%252529&bc=gAAAAAgAAAAA&. Accessed September 15, 2023.

Deakins K, Chatburn RL. A comparison of intrapulmonary percussive ventilation and conventional chest physiotherapy for the treatment of atelectasis in the pediatric patient. Respir Care. 2002; 47(10):1162-1167.

Irwin RS, Baumann MH, Bolser DC, et al.; American College of Chest Physicians (ACCP). Diagnosis and management of cough executive summary: ACCP evidence-based clinical practice guidelines. Chest. 2006; 129(1 Suppl):1S-23S.

Noridian. LCD for High Frequency Chest Wall Oscillation Devices. January 2020. https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=33785&ver=34&keywordtype=starts&keyword=high%20frequenc&bc=0. Accessed September 15, 2023.

Specialty-matched clinical peer review.

Varekojis SM, Douce FH, Flucke RL, et al. A comparison of the therapeutic effectiveness of and preference for postural drainage and percussion, intrapulmonary percussive ventilation, and high-frequency chest wall compression in hospitalized cystic fibrosis patients. Respir Care. 2003; 48(1):24-28.

## Revision History

| Company(ies) | DATE | REVISION |
|---|---|---|
| EmblemHealth<br>ConnectiCare | Sept. 13, 2019 | Added the following covered indications to HFDWOD:<br>– Any neuromuscular disease disorder with ineffective cough<br>– Members with a gastrostomy tube and risk of aspiration if manual chest physical therapy (PT) is indicated on a case by case basis when other methods of daily chest PT have been tried and failed |
| ConnectiCare | Jun. 14, 2019 | ConnectiCare adopts the clinical criteria of its parent corporation EmblemHealth |
| EmblemHealth | Jun. 10, 2016 | Communicated noncoverage of IPVs |