Texas Children's	Secretion and Mucous Clearance Devices Guideline	
Guideline # 10577	***Categories*** Administration / Non-Clinical →TCHP Utilization Management	***This Guideline Applies To:*** Texas Children's Health Plan ***Document Owner*** Andrea Canady

GUIDELINE STATEMENT: Texas Children's Health Plan (TCHP) performs authorization on the following secretion and mucous clearance devices: Percussion Cup, Cough augmentation devices (e.g., mechanical insufflator-exsufflator or cough assist machine), High-frequency Chest Wall Oscillation (HFCWO) System and Intrapulmonary percussive ventilation (IPV) system.

DEFINITIONS:

Electrical Percussor - Electrical device used chest percussion or vibration

High-frequency Chest Wall Oscillation (HFCWO) System - Airway clearance device that loosens mucus by applying vibrations at different frequencies to the chest wall via a wearable vest.

Cough augmentation devices (e.g., mechanical insufflator-exsufflator or cough assist machine) – Airway clearance device that gives positive pressure to the airway and then negative pressure; stimulating natural cough.

Percussion Cup – Cup used for manual Chest physical therapy

Intrapulmonary percussive ventilation (IPV) system – An airway clearance device that delivers short bursts of air through a mouth piece or mask

PRIOR AUTHORIZATION GUIDELINE

All requests for prior authorization for Secretion and mucous clearance devices are received via online submission, fax, phone or mail by the Utilization Management Department and processed during normal business hours.

1. To request prior authorization for a Secretion and mucous clearance device, clinical documentation to support the medical necessity for the selected Secretion and mucous clearance device must be provided

1.1. Prior authorization requests for the rental or purchase of secretion and mucus clearance devices requires submission of a Texas Medicaid Prior Authorization Request for Secretion and Mucus Clearance Devices - Initial Request form or a Texas Medicaid Prior

Authorization Request for Secretion and Mucus Clearance Devices -Renewal Request form completed, signed, and dated by the member's treating physician

2. Percussion cups, used when performing chest physiotherapy, may be medically necessary to loosen thick, mucus secretions, assist respiration, and prevent infections and do not require prior authorization.

2.1. Percussion cups may be purchased only using miscellaneous DME procedure code E1399.

3. An electrical percussor (procedure code E0480) may be considered for rental or purchase with documentation of medical necessity including a description of all previous courses of therapy (such as manual percussion and postural drainage (P&PD) or valved devices) and why they did not adequately assist the member with airway mucus clearance.

3.1. An electrical percussor (procedure code E0480) will be considered purchased after 10 months of rental through the same provider and a request for purchase or further rental will not be considered.

4. A cough augmentation device (mechanical insufflator-exsufflator or cough assist machine) (procedure code E0482) may be considered for prior authorization for rental for members who have chronic pulmonary disease or neuromuscular disorders (including but not limited to spinal cord injury with quadriplegia, muscular dystrophies and spinal muscular atrophy) that affect the respiratory musculature, causing a weak, ineffectual, or absent cough.

4.1. Prior authorization of a cough augmentation device may be considered for an initial three-month rental period with all of the following documentation completed, signed, and dated by the client's treating physician:

4.1.1. Diagnosis and medical history including: recent illnesses, complications, medications used, history of recent hospitalizations, and results of pulmonary function studies (if applicable) due to diagnosis related complications.

4.1.2. Clinical evidence supporting natural deterioration to the level of requiring the use of a cough augmentation device to clear the airways, such as a weak, ineffective cough as demonstrated by pulmonary function studies (PFTs) and/or clinical assessment of cough strength (for members who are unable to perform PFTs

4.1.3. Following the initial 3 month trial period, requests for prior authorization recertification for continued rental must include documentation by the client's treating physician that the client is compliant with the use of the equipment and that the treatment is effective.

5. A high-frequency chest wall oscillation (HFCWO) system (procedure code E0483) may not prior authorized as first line treatment. The member must have trialed other percussion and postural drainage therapy, for a minimum of three months before a request for a HFCWO system will be considered for prior authorization. Exception may be considered for members with Cystic Fibrosis and bronchiectasis with chronic mucopurulent bronchitis

5.1. A request for a HFCWO system may be considered for prior authorization for rental when submitted with documentation addressing why prior therapy was ineffective and documentation of one of the following conditions.

5.1.1. Bronchiectasis confirmed by CT scan and characterized by either a continuous daily productive cough for 6 months or frequent exacerbations of pulmonary infections (i.e., more than 2 times per year) requiring antibiotic therapy.

5.1.2. Cystic fibrosis or other documented chronic suppurative endobronchitis.

5.1.3. Chronic neuromuscular disorder affecting the member's ability to cough or clear respiratory secretions.

5.1.4. Weak ineffective or absent cough caused by chronic pulmonary disease or a neuromuscular disorder leading to respiratory complications as a result of inability to clear mucous

5.1.5. Inability to adequately clear respiratory secretions and other appropriate (age, ability, skill) modes of chest physiotherapy (such as percussion and postural drainage therapy or mechanical device) that have been trialed by the member parent, guardian, or caregiver before the HFCWO request and the reasons the trialed therapy was ineffective or contraindicated.

5.1.6. Documentation that any previous use of an HFCWO device did not result in aspiration, exacerbation of a gastrointestinal or pulmonary condition, or exacerbation of seizure activity.

5.2. After initial three-month rental, the HFCWO system (procedure code E0483) is documented to be effective, purchase of the system may be considered for prior authorization when submitted with all the following required documentation:

5.2.1. A pulmonologist physician's statement of the HFCWO system trial in a clinic, hospital, or the home setting documenting:

5.2.1.1. The results of the HFCWO system therapy

5.2.1.2. The effectiveness and tolerance of the system that includes evidence of vest tolerance

5.2.1.3. A statement from the treating physician that the previous use of the HFCWO device has not resulted in aspiration, exacerbation of a gastrointestinal or pulmonary issue, or exacerbation of seizure activity.

5.3. A HFCWO system will be considered purchased after 10 months of rental through the same provider and a request for purchase or further rental will not be considered.

5.4. A HFCWO system purchase will be reimbursed only once per lifetime, due to the lifetime warranty provided by the manufacturer. Requests for a vest replacement (procedure code A7025) must include documentation that supports the client can no longer wear the vest due to changes in the client's condition such as changes in height, weight, or skin abrasions.

6. A Intrapulmonary percussive ventilation (IPV) system (procedure code E0481) may be considered for prior authorization for initial 3 month trial rental.

6.1. Only for members who have chronic pulmonary disease or neuromuscular disorders (including spinal cord injury with quadriplegia) that affect the respiratory musculature, causing a weak, ineffectual, or absent cough with documentation of one of the following conditions:

6.1.1. Bronchiectasis confirmed by CT scan and characterized by either a continuous daily productive cough for 6 months or frequent exacerbations of pulmonary infections (i.e., more than 2 times per year) requiring antibiotic therapy

6.1.2. Cystic fibrosis or other documented chronic suppurative endobronchitis.

6.1.3. Chronic neuromuscular disorder affecting the member's ability to cough or clear respiratory secretions.

6.1.4. Weak ineffective or absent cough caused by chronic pulmonary disease or a neuromuscular disorder.

6.1.5. History of a chronic respiratory illness with inability to adequately clear respiratory secretions leading to complications such as chronic bronchitis or recurrent pneumonia.

6.2. Documentation of other appropriate (age, ability, skill) modes of chest physiotherapy (such as percussion and postural drainage therapy or mechanical device) that have been trialed by the member parent, guardian, or caregiver for a minimum of three months before the IPV request and the reasons the trialed therapy was ineffective or contraindicated.

6.3. Request for Intrapulmonary percussive ventilation (IPV) system are not a benefit if requested primarily for the convenience of the caregiver.

6.4. A Intrapulmonary percussive ventilation (IPV) system will be considered purchased after 10 months of rental through the same provider and a request for purchase or further rental will not be considered.

6.5. A member may **not** have both a high-frequency chest wall oscillation (HFCWO) system and Intrapulmonary percussive ventilation IPV system as these devices have similar actions on mucus clearance

6.5.1. Exception may be considered with detailed letter of medical necessity from the member's treating pulmonologist describing how one device which has been

purchased has failed to meet the member's airway clearance needs and the medical necessity for the other device. If during the rental period, one device must be discontinued to obtain the other device.

6.6. A member with severe neuromuscular disease, ineffecitve cough, and recurrent pneumonia may require both mechanical insufflator-exsufflator (cough assist) and a chest wall oscillation system (HFCWO or IPV). This combination may be requested with letter of medical necessity from the member's treating pulmonologist describing the history of recurrent pneumonia, ineffective cough, and need to loosen mucus to adequately clear respiratory secretions.

7. Requests that do not meet the criteria established by this guideline will be reviewed by a TCHP Medical Director/Physician Reviewer on a case by case basis.

RELATED DOCUMENTS:

REFERENCES:

Government Agency, Medical Society, and Other Publications:

Texas Medicaid Provider Procedure Manual – Accessed February 8, 2020

http://www.tmhp.com/manuals_pdf/tmppm/tmppm_living_manual_current/2_DME_and_Supplies.pdf

Peer Reviewed Publications

Lauwers E, Ides K, Van Hoorenbeeck K, Verhulst S. The effect of intrapulmonary percussive ventilation in pediatric patients: A systematic review. Pediatric Pulmonology. 2018;53:1463–1474

Chapter 45: PUlmonary Complications of Neuromuscular Disorders
and Chapter 46: Airway Clearance Techniques
in Light MJ ed. Pediatric Pulmonology American Academy of Pediatrics, 2011

Hardy KA. CHapter 113: Airway Clearance Devices and Techniques. In Stokes DC and Dozor AJ, eds. Pediatric Pulmonology, Asthma, and SLeep Medicine: A Quick Reference Guide. American Academy of Pediatrics, Itasca IL, 2018

Schechter MS. Airway clearance applications in infants and children. Respiratory Care. 2007;52:1382–1391

Perrin C, Unterborn JN, Ambrosio CD, Hill NS. Pulmonary complications of chronic neuromuscular diseases and their management. Muscle Nerve. 2004;29:5–27

Finder JD, Birnkrant D, Carl J, Farber HJ, Gozal D, Iannaccone S, Kovesi T, Kravitz RM, Panitch H, Schramm C, Schroth M, Sharma G, Sievers L, Silvestri JM, Sterni L. Respiratory care of the patient with Duchenne muscular dystrophy: An Official ATS Consensus Statement. American Journal of Respiratory and Critical Care Medicine 2004; 170.:456–465.

Last Approval date by the Clinic & Administrative Advisory Committee (CAAC): 4/30/20

Original Document Creation Date: 05/08/2020	This Version Creation Date: 05/08/2020	Effective/Publication Date: 05/19/2020