

# Medical Policy Outpatient Chest Physical Therapy

**Policy Number: 040** 

	Commercial and Qualified Health Plans	Mass General Brigham ACO	Medicare Advantage	OneCare	Senior Care Options (SCO)
Authorization required	Х	Х	Х	X	Х
No Prior Authorization					

#### Overview

The purpose of this document is to describe the guidelines Mass General Brigham Health Plan utilizes to determine medical appropriateness for outpatient chest physical therapy for Mass General Brigham Health Plan members.

## **Coverage Guidelines**

Outpatient chest physical therapy may be considered medically necessary in members with a clinically documented underlying disease or condition (as listed below) as well as documentation of recent medical deterioration (illness/injury/exacerbation/surgery within last 30 days). Outpatient chest physical therapy is generally not considered medically necessary for persons whose pulmonary condition is stable, as chest physical therapy can usually be competently administered at home by a family member or caregiver.

Mass General Brigham Health Plan will consider coverage of outpatient chest physical therapy in members when both I and II are met:

# I. Chronic respiratory disease caused by one of the following:

- Cystic Fibrosis
- Bronchiectasis
- Neuromuscular diseases (e.g. Guillain-Barre)
- Progressive muscular weakness (e.g. Myasthenia Gravis)
- Chronic Obstructive Pulmonary Disease (COPD)
- Cerebral Palsy
- Muscular Dystrophy
- Primary ciliary dyskinesia

## II. Either A or B:

- A. Acute exacerbation, acute respiratory illness, injury, or surgery causing deterioration of lung function within the past 30 days
- B. All of the following:
  - i. Two or more hospitalizations for respiratory illness within the past year



- ii. Documented failure of airway clearance therapy with at least two oscillatory positive airway pressure devices (e.g., Acapella, Aerobika, Flutter, Shaker, Thera-PEP), or contraindication to all of oscillatory positive airway pressure devices
- iii. Documented failure of high-frequency chest wall oscillation (e.g., the Vest), or contraindication to high-frequency chest wall oscillation (e.g., rib fractures)
- iv. Family members, partners, and caregivers are unable to perform chest physical therapy at the required frequency; OR there is no available family member, partner, or caregiver.

# **Documentation Requirements**

All member requests require an explicit order from the authorized treating pulmonologist including diagnosis and clinical indications along with a detailed explanation for the inability of a caregiver to provide the services. Correspondence from the treating respiratory therapist alone will not suffice.

### **Duration of Services**

- Acute exacerbation of cystic fibrosis exacerbation: up to 12 visits within a 2-week period
- Acute exacerbation of other chronic diseases: up to 8 visits within a 2-week period
- Chronic management of patients meeting criterion II.B. above: up to 60 visits within a 6-month period

#### **Exclusions**

- The member's disease has progressed to the stage where chest physical therapy is not possible.
- If the member has significant learning impairments, medical co-morbidities, or behavioral health conditions (e.g. severe psychiatric disease) that would interfere with the member's ability to participate in, or benefit from, outpatient chest physical therapy. Such conditions include, but are not limited to:
  - Dementia/organic brain syndrome/disabling stroke
  - Unstable angina
  - Myocardial infarction within the last 3 months
  - Uncontrolled arrhythmia
  - Metastatic cancer
  - Severe arthritis limited exercise capacity
  - Insufficiently treated psychiatric disease
  - Active substance misuse
- The member exhibits poor motivation, inability to learn, and/or non-compliance.

## **Medicare Variation**

Mass General Brigham Health Plan uses guidance from the Centers for Medicare and Medicaid Services (CMS) for medical necessity determinations for its Medicare Advantage plan members. National Coverage Determinations (NCDs), Local Coverage Articles (LCAs), and documentation included in the Medicare manuals are the basis for medical necessity determinations. When there is no guidance from CMS for the requested service, Mass General Brigham Health Plan's medical policies are used for medical necessity determinations. As of Mass General Brigham Health Plan's most recent policy review, CMS had:



- NCD Postural Drainage Procedures and Pulmonary Exercises (240.7)
- LCD Respiratory Care (L34149)
- LCD Respiratory Care (L37293)
- LCD Respiratory Therapy (Respiratory Care) (L34430)

#### **MassHealth Variation**

Mass General Brigham Health Plan uses guidance from MassHealth for medical necessity determinations for its Mass General Brigham ACO members. When there is no guidance from MassHealth for the requested service, Mass General Brigham Health Plan's medical policies are used for medical necessity determinations. As of Mass General Brigham Health Plan's most recent policy review, MassHealth had no medical necessity guidance for outpatient chest physical therapy.

#### **OneCare and SCO Variation**

Mass General Brigham Health Plan uses guidance from CMS for medical necessity determinations for its OneCare and SCO plan members. NCDs, LCDs, LCAs, and documentation included in the Medicare manuals are the basis for medical necessity determinations. When there is no guidance from CMS for the requested service, Mass General Brigham Health Plan uses medical necessity guidelines from MassHealth. When there is no guidance from CMS or from MassHealth, Mass General Brigham Health Plan's medical policies are used for medical necessity determinations.

## **Definitions**

<u>Chest Physiotherapy (Physical Therapy):</u> Chest physiotherapy consists of external mechanical maneuvers, such as chest percussion, postural drainage, and vibration, to augment mobilization and clearance of airway secretions. It is indicated for patients in whom cough is insufficient to clear thick, tenacious, copious, or loculated secretions.

## **Codes**

The following codes are included below for informational purposes only; inclusion of a code does not constitute or imply coverage.

Authorized CPT/HCPCS Codes	Code Description
94667	Manipulation chest wall, such as cupping, percussing, and vibration to facilitate lung function; initial demonstration and/or evaluation
94668	Manipulation chest wall, such as cupping, percussing, and vibration to facilitate lung function; subsequent

## **Summary of Evidence**

Airway clearance techniques (ACTs) represent a fundamental approach to respiratory health management, encompassing conventional physiotherapy methods like directed cough/huff, postural drainage, and percussion, as well as mechanical interventions such as oscillatory positive airway pressure and chest wall oscillation devices. Despite their widespread clinical adoption, particularly in mucociliary diseases like cystic fibrosis and bronchiectasis where they are considered essential therapy, the evidence base supporting specific techniques remains limited. This review synthesizes evidence from systematic reviews, randomized controlled trials, and observational studies published between 2008-2023, focusing on clinical efficacy and implementation strategies across different patient populations.



Recent systematic analyses have highlighted significant gaps in our understanding of ACT efficacy. Two 2023 Cochrane reviews by Warnock and Gates examined 12 randomized controlled trials (RCTs) or quasi-RCTs of airway clearance therapies in cystic fibrosis. Their analysis revealed considerable methodological heterogeneity and predominantly low or very low certainty evidence, with no significant effects demonstrated for key outcomes like lung function or quality of life. While various methods including autogenic drainage, conventional chest physiotherapy, and positive expiratory pressure (PEP) were evaluated, no technique emerged as definitively superior.

The clinical impact of chest physiotherapy varies significantly across different patient populations and conditions. In the postoperative setting, Branson's 2013 retrospective cohort study demonstrated promising results, with implementation of protocols like I COUGH associated with reductions in postoperative pneumonia (from 2.6% to 1.6%) and unplanned intubations (from 2% to 1.2%), though these improvements did not reach statistical significance. However, evidence for other populations remains inconsistent. Cochrane reviews by Hough et al. (2008) and Figuls et al. (2012) found limited support for chest physiotherapy in ventilated infants and acute bronchiolitis respectively, with evidence quality rated as very low to low due to small sample sizes and study design limitations. For acute COPD exacerbations, Tang et al.'s 2010 systematic review suggested modest benefits, highlighting the importance of patient-specific factors in treatment efficacy.

The strongest evidence for chest physiotherapy comes from chronic respiratory disease management, particularly in cystic fibrosis and bronchiectasis. Clinical guidelines by Flume et al. (2009) emphasize its crucial role in maintaining pulmonary health in cystic fibrosis, supported by subsequent research. Notably, Grosse-Onnebrink et al.'s 2017 randomized controlled study demonstrated significant improvements in lung clearance index (median improvement 0.9, range: -0.45 to 3.47; p = 0.002), while Fuchs et al.'s 2010 observational study showed positive effects on LCI variability. In bronchiectasis, Powner et al.'s 2019 observational comparative retrospective cohort study revealed significant benefits from integrating chest physiotherapy into structured care algorithms. Their analysis showed stable FEV1 measurements (1.85  $\pm$  0.60 L pre vs. 1.89  $\pm$  0.60 L post, p = NS), reduced hospitalizations (from 1.3  $\pm$  1.0 to 0.46  $\pm$  0.81 per year, p < 0.0001), and decreased antibiotic use (2.5  $\pm$  0.86 to 2.1  $\pm$  0.92 courses/year, p < 0.0001).

Based on the available evidence, several key implementation recommendations emerge. For chronic respiratory conditions, particularly cystic fibrosis and bronchiectasis, regular ACT should be incorporated into standard care protocols. Technique selection should be individualized based on patient factors including age, disease severity, and adherence capability. Monitoring should include both objective measures (lung function tests, exacerbation frequency) and patient-reported outcomes (quality of life, symptom scores). Critical gaps requiring further research include comparative effectiveness of specific techniques, optimal timing and duration of interventions, and long-term outcomes in pediatric populations.

#### **Effective**

January 2026: Ad hoc review. Updated prior authorization table and added variation for OneCare and SCO members. Added MassHealth variation. Added NCD and LCDs.

April 2025: Annual review. Medicare variation clarified. Summary of evidence added. References updated. April 2024: Annual Review. Coverage expanded to increase the number of allowable visits for acute exacerbations. Coverage expanded to allow chronic therapy in members with recent hospitalizations, failure of airway clearance devices, and no family member or caretaker available to provide therapy at the required frequency.

April 2023: Annual review. Medicare Advantage added to table. Medicare variation language added.

April 2022: Annual review.

April 2021: Annual review.

March 2020: Annual review. References updated.



March 2019: Annual review.

May 2018: Annual review. Added clarifying sentence following medical deterioration. Added duration of services. Edited Documentation Requirements section.

November 2017: Effective date.

#### References

Branson RD. The scientific basis for postoperative respiratory care. Respir Care 2013;58(11):1974-1984.

Field JB, Levine A. Chest Physiotherapy - Pulmonary Disorders [Internet]. Merck Manuals Professional Edition. 2017 [cited 2017 Jul 31]

Figuls MRI, Giné-Garriga M, Rugeles CG, Perrotta C. Chest physiotherapy for acute bronchiolitis in paediatric patients between 0 and 24 months old. Cochrane Database of Systematic Reviews 2012.

Flume PA, Robinson KA, O'Sullivan BP, et al. Cystic fibrosis pulmonary guidelines: airway clearance therapies. Respir Care 2009.54(4):522-37.

Fuchs SI, Toussaint S, Edlhaimb B, et al. Short-term effect of physiotherapy on variability of the lung clearance index in children with cystic fibrosis. *Pediatr Pulmonol* 2010 Mar;45(3):301-6. doi: 10.1002/ppul.21180.

Grosse-Onnebrink J, Mellies U, Olivier M, et al. Chest physiotherapy can affect the lung clearance index in cystic fibrosis patients. *Pediatr Pulmonol* 2017; 52:625–631.

Hough JL, Flenady V, Johnston L, Woodgate PG. Chest physiotherapy for reducing respiratory morbidity in infants requiring ventilator support. Cochrane Database Syst Rev. 2008;(3):CD006445.

Powner J, Nesmith A, Kirkpatrick DP, Nichols JK, Bermingham B, Solomon GM. Employment of an algorithm of care including chest physiotherapy results in reduced hospitalizations and stability of lung function in bronchiectasis. BMC Pulmonary Medicine 2019;19(1).

Tang CY, Taylor NF, Blackstock FC. Chest physiotherapy for patients admitted to hospital with an acute exacerbation of chronic obstructive pulmonary disease (COPD): A systematic review. *Physiotherapy* 2010;96(1):1-13.

Van der Schans CP. Conventional chest physical therapy for obstructive lung disease. *Respir Care* 2007;52(9):1198-1206; discussion 1206-1209.

Warnock L, Gates A. Airway clearance techniques compared to no airway clearance techniques for cystic fibrosis. *Cochrane Database Syst Rev.* 2023;4(4):CD001401.

Wiles L, Camarilla P, Williams MT. Exercise training combined with psychological interventions for people with chronic obstructive pulmonary disease. *Respirology* 2014. PMID 25339508.

