



MASSACHUSETTS

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Medical Policy

Outpatient Pulmonary Rehabilitation

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Policy Number: 136

BCBSA Reference Number: 8.03.05 (For Plan internal use only)

Related Policies

- Lung and Lobar Lung Transplant, [#015](#)
- Heart/ Lung Transplant, [#269](#)
- Lung Volume Reduction Surgery for Severe Emphysema, [#364](#)

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

A single course of pulmonary rehabilitation in the outpatient ambulatory care setting may be **MEDICALLY NECESSARY** for treatment of chronic pulmonary disease for individuals with moderate to severe disease who are experiencing disabling symptoms and significantly diminished quality of life despite optimal medical management.

A single course of pulmonary rehabilitation may be **MEDICALLY NECESSARY** in an outpatient ambulatory care setting as a preoperative conditioning component for those considered appropriate candidates for lung volume reduction surgery or for lung transplantation.

Pulmonary rehabilitation programs are considered **MEDICALLY NECESSARY** following lung transplantation.

Pulmonary rehabilitation programs are considered **INVESTIGATIONAL** following other types of lung surgery, included but not limited to lung volume reduction surgery and surgical resection of lung cancer.

Multiple courses of pulmonary rehabilitation are considered is **INVESTIGATIONAL**, either as maintenance therapy in individuals who initially respond, or in individuals who fail to respond, or whose response to an initial rehabilitation program has diminished over time.

Home-based pulmonary rehabilitation programs are **INVESTIGATIONAL**.

Pulmonary rehabilitation programs are **INVESTIGATIONAL** in all other situations.

Pulmonary rehabilitation in the outpatient ambulatory setting is **NOT MEDICALLY NECESSARY** for patients with severe psychiatric disturbance (e.g., dementia, organic brain syndrome), and significant or unstable medical conditions (e.g., congestive heart failure, acute cor pulmonale, substance abuse, significant liver dysfunction, metastatic cancer, disabling stroke).

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

| | Outpatient |
|--|--|
| Commercial Managed Care (HMO and POS) | Prior authorization is not required . |
| Commercial PPO and Indemnity | Prior authorization is not required . |
| Medicare HMO BlueSM | Prior authorization is not required . |
| Medicare PPO BlueSM | Prior authorization is not required . |

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The above medical necessity criteria MUST be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO, Indemnity, Medicare HMO Blue and Medicare PPO Blue:

CPT Codes

There is no specific CPT code for this service.

HCPCS Codes

| HCPCS codes: | Code Description |
|--------------|--|
| G0237 | Therapeutic procedures to increase strength or endurance of respiratory muscles, face-to-face, one-on-one, each 15 minutes (includes monitoring) |
| G0238 | Therapeutic procedures to improve respiratory function, other than described by G0237, one-on-one, face-to-face, per 15 minutes (includes monitoring) |
| G0239 | Therapeutic procedures to improve respiratory function or increase strength or endurance of respiratory muscles, two or more individuals (includes monitoring) |
| G0302 | Preoperative pulmonary surgery services for preparation for LVRS, complete course of services, to include a minimum of 16 days of services |
| G0303 | Preoperative pulmonary surgery services for preparation for LVRS, 10 to 15 days of services |
| G0304 | Preoperative pulmonary surgery services for preparation for LVRS, 1 to 9 days of services |
| G0305 | Post discharge pulmonary surgery services after LVRS, minimum of 6 days of services |

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| G0424 | Pulmonary rehabilitation, including exercise (includes monitoring), one hour, per session, up to two sessions per day |
| S9473 | Pulmonary rehabilitation program, nonphysician provider, per diem |

The following ICD Diagnosis Codes are considered medically necessary when submitted with the HCPCS codes above if medical necessity criteria are met:

ICD-10 Diagnosis Codes

| ICD-10-CM Diagnosis codes: | Code Description |
|----------------------------|--|
| D38.1 | Neoplasm of uncertain behavior of trachea, bronchus and lung |
| D84.1 | Defects in the complement system |
| D86.0 | Sarcoidosis of lung |
| D86.2 | Sarcoidosis of lung with sarcoidosis of lymph nodes |
| D86.87 | Sarcoid myositis |
| D86.9 | Sarcoidosis, unspecified |
| E84.0 | Cystic fibrosis with pulmonary manifestations |
| E84.9 | Cystic fibrosis, unspecified |
| I26.01 | Septic pulmonary embolism with acute cor pulmonale |
| I26.02 | Saddle embolus of pulmonary artery with acute cor pulmonale |
| I26.09 | Other pulmonary embolism with acute cor pulmonale |
| I26.90 | Septic pulmonary embolism without acute cor pulmonale |
| I26.92 | Saddle embolus of pulmonary artery without acute cor pulmonale |
| I26.99 | Other pulmonary embolism without acute cor pulmonale |
| I27.0 | Primary pulmonary hypertension |
| J22 | Unspecified acute lower respiratory infection |
| J41.0 | Simple chronic bronchitis |
| J41.1 | Mucopurulent chronic bronchitis |
| J41.8 | Mixed simple and mucopurulent chronic bronchitis |
| J42 | Unspecified chronic bronchitis |
| J43.0 | Unilateral pulmonary emphysema [MacLeod's syndrome] |
| J43.1 | Panlobular emphysema |
| J43.2 | Centrilobular emphysema |
| J43.8 | Other emphysema |
| J43.9 | Emphysema, unspecified |
| J44.0 | Chronic obstructive pulmonary disease with acute lower respiratory infection |
| J44.1 | Chronic obstructive pulmonary disease with (acute) exacerbation |
| J44.9 | Chronic obstructive pulmonary disease, unspecified |
| J47.0 | Bronchiectasis with acute lower respiratory infection |
| J47.1 | Bronchiectasis with (acute) exacerbation |
| J47.9 | Bronchiectasis, uncomplicated |
| J68.4 | Chronic respiratory conditions due to chemicals, gases, fumes and vapors |
| J70.1 | Chronic and other pulmonary manifestations due to radiation |
| J70.2 | Acute drug-induced interstitial lung disorders |
| J70.3 | Chronic drug-induced interstitial lung disorders |
| J70.4 | Drug-induced interstitial lung disorders, unspecified |
| J70.5 | Respiratory conditions due to smoke inhalation |
| J70.8 | Respiratory conditions due to other specified external agents |
| J70.9 | Respiratory conditions due to unspecified external agent |
| J84.10 | Pulmonary fibrosis, unspecified |

| | |
|----------|--|
| J84.111 | Idiopathic interstitial pneumonia, not otherwise specified |
| J84.112 | Idiopathic pulmonary fibrosis |
| J84.113 | Idiopathic non-specific interstitial pneumonitis |
| J84.114 | Acute interstitial pneumonitis |
| J84.115 | Respiratory bronchiolitis interstitial lung disease |
| J84.116 | Cryptogenic organizing pneumonia |
| J84.117 | Desquamative interstitial pneumonia |
| J84.170 | Interstitial lung disease with progressive fibrotic phenotype in diseases classified elsewhere |
| J84.178 | Other interstitial pulmonary diseases with fibrosis in diseases classified elsewhere |
| J84.2 | Lymphoid interstitial pneumonia |
| J84.89 | Other specified interstitial pulmonary diseases |
| J95.3 | Chronic pulmonary insufficiency following surgery |
| J95.822 | Acute and chronic postprocedural respiratory failure |
| J96.10 | Chronic respiratory failure, unspecified whether with hypoxia or hypercapnia |
| J96.11 | Chronic respiratory failure with hypoxia |
| J96.12 | Chronic respiratory failure with hypercapnia |
| J96.20 | Acute and chronic respiratory failure, unspecified whether with hypoxia or hypercapnia |
| J96.21 | Acute and chronic respiratory failure with hypoxia |
| J96.22 | Acute and chronic respiratory failure with hypercapnia |
| J98.2 | Interstitial emphysema |
| J98.3 | Compensatory emphysema |
| J98.4 | Other disorders of lung |
| J98.8 | Other specified respiratory disorders |
| J99 | Respiratory disorders in diseases classified elsewhere |
| M32.13 | Lung involvement in systemic lupus erythematosus |
| M33.01 | Juvenile dermatomyositis with respiratory involvement |
| M33.11 | Other dermatomyositis with respiratory involvement |
| M33.21 | Polymyositis with respiratory involvement |
| M33.91 | Dermatomyositis, unspecified with respiratory involvement |
| M34.0 | Progressive systemic sclerosis |
| M34.1 | CR(E)ST syndrome |
| M34.2 | Systemic sclerosis induced by drug and chemical |
| M34.81 | Systemic sclerosis with lung involvement |
| M34.82 | Systemic sclerosis with myopathy |
| M34.83 | Systemic sclerosis with polyneuropathy |
| M34.89 | Other systemic sclerosis |
| M34.9 | Systemic sclerosis, unspecified |
| M35.02 | Sicca syndrome with lung involvement |
| P27.0 | Wilson-Mikity syndrome |
| P27.1 | Bronchopulmonary dysplasia originating in the perinatal period |
| P27.8 | Other chronic respiratory diseases originating in the perinatal period |
| P27.9 | Unspecified chronic respiratory disease originating in the perinatal period |
| Q21.0 | Ventricular septal defect |
| Q33.4 | Congenital bronchiectasis |
| T82.817A | Embolism due to cardiac prosthetic devices, implants and grafts, initial encounter |
| T82.818A | Embolism of vascular prosthetic devices, implants and grafts, initial encounter |
| Z48.24 | Encounter For Aftercare Following Lung Transplant |
| Z94.2 | Lung Transplant Status |

Description

Pulmonary Rehabilitation

In 2013, the American Thoracic Society and the European Respiratory Society defined pulmonary rehabilitation as a “comprehensive intervention based on a thorough patient assessment followed by patient-tailored therapies that include, but are not limited to exercise training, education, and behavior change.”¹ Pulmonary rehabilitation programs are intended to improve patient functioning and quality of life. Most research has focused on patients with chronic obstructive pulmonary disease, although there has been some interest in patients with asthma, cystic fibrosis, or bronchiectasis.

Summary

Pulmonary rehabilitation is a multidisciplinary approach to reducing symptoms and improving quality of life in patients with compromised lung function. Pulmonary rehabilitation programs generally include a patient assessment followed by therapeutic interventions including exercise training, education, and behavior change.

Summary of Evidence

Chronic Pulmonary Disease Rehabilitation

For individuals with moderate-to-severe chronic obstructive pulmonary disease (COPD) who receive a single course of outpatient pulmonary rehabilitation, the evidence includes numerous systematic reviews of randomized controlled trials (RCTs). Relevant outcomes are symptoms, functional outcomes, and quality of life. The published studies found improved outcomes (ie, functional ability, quality of life) in patients with moderate-to-severe COPD who underwent a comprehensive pulmonary rehabilitation program in the outpatient setting. Among the many randomized trials, the structure of the pulmonary rehabilitation programs varied, so it is not possible to provide guidance on the optimal components or duration of a pulmonary rehabilitation program. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with idiopathic pulmonary fibrosis who receive a single course of outpatient pulmonary rehabilitation, the evidence includes 3 systematic reviews of RCTs. Relevant outcomes are symptoms, functional outcomes, and quality of life. Significant differences favoring pulmonary rehabilitation over usual care were seen in 6-minute walk distance (6MWD) in the short term. Starting at 3 months post-intervention, outcomes did not differ between groups. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals with bronchiectasis who receive a single course of outpatient pulmonary rehabilitation, the evidence includes a systematic review of RCTs and an RCT published after the systematic review. Relevant outcomes are symptoms, functional outcomes, and quality of life. The systematic review included 4 RCTs on pulmonary rehabilitation for patients with bronchiectasis found that some, but not all, outcomes, improved more with pulmonary rehabilitation than with nonexercise control conditions immediately after the intervention. An RCT published after the systematic review found that 6MWT and quality of life scores increased with pulmonary rehabilitation compared to a non-exercise control group in the short-term. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Although most published evidence on outpatient pulmonary rehabilitation for chronic pulmonary diseases assesses COPD, observational studies have reported on outcomes from pulmonary rehabilitation for other chronic pulmonary diseases. Clinical guidelines from pulmonary organizations have supported the use of outpatient pulmonary rehabilitation for individuals who are experiencing disabling symptoms and have significantly diminished quality of life despite optimal medical management. Therefore, outpatient pulmonary rehabilitation may be considered medically necessary for this population.

Preparation for Lung Surgery

For individuals with scheduled lung surgery for volume reduction, transplantation, or resection who receive a single course of preoperative outpatient pulmonary rehabilitation, the evidence includes RCTs and observational studies. Relevant outcomes are symptoms, functional outcomes, and quality of life. There is a lack of large RCTs comparing pulmonary rehabilitation with no pulmonary rehabilitation for preoperative candidates undergoing lung volume reduction surgery, lung transplantation, or lung cancer

resection. Moreover, the available studies have evaluated exercise programs, but not necessarily comprehensive pulmonary rehabilitation programs. Also, the few small RCTs and observational studies have only reported short-term outcomes and there was inconsistent evidence of benefit on these outcomes. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Findings from the National Emphysema Treatment Trial have suggested that pulmonary rehabilitation is an appropriate component of care for patients with COPD before undergoing lung volume reduction surgery. Also, pulmonary rehabilitation is considered the standard of care in individuals undergoing lung transplantation to maximize preoperative pulmonary status. Thus, pulmonary rehabilitation may be considered medically necessary for individuals considered appropriate candidates for lung volume reduction surgery or lung transplantation.

Pulmonary Rehabilitation After Lung Surgery

For individuals who have had lung volume reduction surgery who receive a single course of outpatient pulmonary rehabilitation, the evidence includes a case series. Relevant outcomes are symptoms, functional outcomes, and quality of life. No published RCTs were identified. The case series evaluated a comprehensive pulmonary rehabilitation program after lung volume reduction surgery in 49 patients who had not received preoperative pulmonary rehabilitation. Health-related quality of life was higher at 3 to 6 months and 12 to 18 months post-surgery. The series did not provide data on patients who underwent lung volume reduction surgery and did not have postoperative pulmonary rehabilitation, or patients who had preoperative pulmonary rehabilitation. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have had lung transplantation who receive a single course of outpatient pulmonary rehabilitation, the evidence includes RCTs, a systematic review, and a case series. Relevant outcomes are symptoms, functional outcomes, and quality of life. Neither of the 2 RCTs identified in a 2010 systematic review reported on functional outcomes, but uncontrolled studies have reported improvements in functional outcomes. An RCT, published after the systematic review, found that patients who had a postsurgical exercise intervention walked more 1-year postdischarge than before and had a significantly greater 6MWD. Findings on other outcomes were mixed. The most recent RCT (2017) did not identify a difference in outcomes with longer duration of pulmonary rehabilitation. Case series data also support improvements in 6MWD after postoperative pulmonary rehabilitation. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have had lung cancer resection who receive a single course of outpatient pulmonary rehabilitation, the evidence includes 2 RCTs. Relevant outcomes are symptoms, functional outcomes, and quality of life. One small RCT evaluated a comprehensive pulmonary rehabilitation program in patients who underwent thoracotomy for lung cancer. The trial was terminated early, had a high dropout rate, and reported mixed findings. An exercise-only intervention in patients who had lung cancer surgery had mixed findings and did not evaluate functional outcomes. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Repeat or Maintenance Pulmonary Rehabilitation

For individuals who have had an initial course of pulmonary rehabilitation who receive repeat or maintenance outpatient pulmonary rehabilitation, the evidence includes a limited number of RCTs. Relevant outcomes are symptoms, functional outcomes, and quality of life. One small RCT evaluating repeat pulmonary rehabilitation programs had methodologic limitations and did not report inpatient and outpatient outcomes separately; it also lasted only 3 weeks. In the evaluation of maintenance pulmonary rehabilitation programs, evidence was mixed. Due to the paucity of RCTs, methodologic limitations of available trials, and lack of clinically significant findings, the evidence to determine the effect of maintenance pulmonary rehabilitation programs on health outcomes in patients with COPD is insufficient. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Home-Based Pulmonary Rehabilitation

For individuals who have an indication for outpatient pulmonary rehabilitation who receive a single course of home-based pulmonary rehabilitation, the evidence includes RCTs and systematic reviews. Relevant outcomes are symptoms, functional outcomes, and quality of life. Most studies of home-based pulmonary rehabilitation have compared outcomes with standard care. Very few have compared home-based pulmonary rehabilitation with the hospital- or clinic-based pulmonary rehabilitation, and the available studies are mostly of low quality. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Policy History

| Date | Action |
|----------------|---|
| 5/2023 | Annual policy review. Minor editorial refinements to policy statements; intent unchanged. |
| 4/2022 | Annual policy review. Description, summary, and references updated. Policy statements unchanged. |
| 4/2021 | Annual policy review. Policy statements unchanged. |
| 1/2021 | Medicare information removed. See MP #132 Medicare Advantage Management for local coverage determination and national coverage determination reference. |
| 10/2020 | Clarified coding information |
| 5/2020 | Annual policy review. Description, summary and references updated. Policy statements unchanged. |
| 4/2019 | Annual policy review. Description, summary and references updated. Policy statements unchanged. |
| 5/2018 | Annual policy review. Policy statements reordered to align with the summary. Prior Authorization Information reformatted. Policy statements unchanged. |
| 2/2018 | Clarified coding information. |
| 10/2017 | Clarified coding information. |
| 4/2016 | New references added from Annual policy review. |
| 7/2015 | Annual policy review. In summary, "lung resection surgery" corrected to "lung volume reduction surgery." |
| 6/2015 | Annual policy review. New medically necessary and investigational indications described. Effective 6/1/2015. |
| 11/2014 | Clarified coding information. |
| 6/2014 | Annual policy review. New investigational indications described. Effective 6/1/2014. |
| 5/2014 | Updated Coding section with ICD10 procedure and diagnosis codes/. Effective 10/2015. |
| 4/2014 | Coding information clarified. |
| 2/2013 | New references from Annual policy review. |
| 11/2011-4/2012 | Medical policy ICD 10 remediation: Formatting, editing and coding updates. No changes to policy statements. |
| 4/2011 | Reviewed - Medical Policy Group – Cardiology and Pulmonology. No changes to policy statements. |
| 3/2010 | Reviewed - Medical Policy Group - Pulmonology, Allergy/Asthma/Immunology, ENT and Otolaryngology. No changes to policy statements. |
| 11/1/2009 | Medical Policy 136 effective 11/1/09 describing covered and non-covered indications. |
| 6/2007 | Annual policy review. No changes to policy statement. |

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

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