Healthy Blue

Clinical UM Guideline

Subject:	Pulmonary Rehabilitation		
Guideline #:	CG-REHAB-03	**Publish Date:**	07/08/2020
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Description

This document addresses the use of pulmonary rehabilitation for the treatment of various lung conditions. Pulmonary rehabilitation (PR) is an individually tailored multidisciplinary program of care for people with chronic respiratory impairment.

Clinical Indications

Medically Necessary:

I. Pulmonary rehabilitation (PR) is considered **medically necessary** in individuals who meet the following criteria:

A. Individual is free from the following comorbidities:
1. Conditions that may interfere with the individual undergoing the rehabilitative process, including but not limited to:
   a. Advanced arthritis; **or**
   b. Disruptive behavior; **or**
   c. Inability to learn; **and**
2. Conditions that may place the individual at undue risk during exercise training, including but not limited to:
   a. Recent myocardial infarction; **or**
   b. Severe pulmonary hypertension; **or**
   c. Unstable angina.

AND meet the following criteria from B **OR** C:

B. Individual with chronic respiratory impairment that, despite optimal medical management, results in disabling dyspnea associated with a restriction in ordinary activities and significant impairment in quality of life. Candidates must also be motivated to participate in a PR program. Individuals meeting these criteria may include:
1. Those suffering with any of the following:
   a. Chronic obstructive pulmonary disease such as:
      i. Asthma; **or**
      ii. Bronchiectasis; **or**
      iii. Chronic bronchitis; **or**
      iv. Cystic fibrosis; **or**

v. Emphysema; **or**

b. Restrictive diseases such as:
   i. Chest wall disease; **or**
   ii. Interstitial disease; **or**
   iii. Post-polio syndrome; **or**
   iv. Selected neuromuscular disorders; **or**
   v. Thoracic cage abnormalities; **or**

c. Stable lung cancer;

OR

C. Individual is preparing for **OR** recovering from surgical interventions such as:
   1. Lung transplantation; **or**
   2. Lung volume reduction surgery; **or**
   3. Post-operative states (for example, thoracic or abdominal surgery).

II. Repeat PR programs may be considered **medically necessary** for individuals undergoing a second PR program in connection with lung transplantation or lung volume reduction surgery when medical necessity criteria for PR are met.

Not Medically Necessary:

PR provided in the **inpatient** setting is considered **not medically necessary** when medical necessity criteria for PR are not met.

Place of Service/Duration

Place of Service: Ambulatory/Outpatient
Duration: Frequency and duration of the program may vary according to the individual's needs. It is not uncommon for the individual to receive therapy 3 times per week for 4 to 6 weeks.

Coding

The following codes for treatments and procedures applicable to this document are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

HCPCS

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-G0304	Pre-operative pulmonary surgery services for preparation for LVRS [includes codes G0302, G0303, G0304]
G0305	Post-discharge pulmonary surgery services after LVRS, minimum of 6 days of services
G0424	Pulmonary rehabilitation, including exercise (includes monitoring), one hour, per session, up to two sessions per day
S9473	Pulmonary rehabilitation program, non-physician provider, per diem

ICD-10 Diagnosis

All diagnoses

Discussion/General Information

According to the American Thoracic Society (ATS) pulmonary rehabilitation is defined as:

> A comprehensive intervention based on a thorough patient assessment followed by patient-tailored therapies, which include, but are not limited to, exercise training, education, and behavior change, designed to improve the physical and psychological condition of people with chronic respiratory disease and to promote the long-term adherence of health-enhancing behaviors.

The PR program combines an accurate diagnosis with therapy, emotional support, and education to stabilize or reverse both the physio- and psychopathology of pulmonary disease.

The goal of PR is to:

- Restore the individual to the highest possible level of independent function.
- Educate the individual and significant others about the disease, treatment options, and coping strategies.
- Encourage individuals to be actively involved in providing for their own healthcare and to be more independent in activities of daily living (ADL).

Several studies have demonstrated important benefits of PR including reducing dyspnea (shortness of breath) and improving exercise capacity, total energy expenditure, and quality of life (QOL) (Dodd, 2012; Dowman, 2017; Egan, 2012; Mandal, 2012; McFarland, 2012). A number of studies have demonstrated that PR has also been associated with decreases in hospitalization rates and the overall utilization of medical resources. A randomized trial conducted by Ries and colleagues (2005) demonstrated a non-significant trend for PR to increase 5-year survival. Mandal and colleagues (2012) conducted a pilot randomized controlled trial (RCT) with 30 subjects with non-cystic fibrosis bronchiectasis. The primary outcome measure was the incremental shuttle walking test (ISWT). Study authors reported no benefit for subjects in the control group, who received chest physiotherapy only, at the end of 8 weeks of therapy, or at 20 weeks post-therapy. Subjects in the experimental group, who received chest physiotherapy in conjunction with PR, demonstrated significant benefits (relative to baseline values) on ISWT ($p=0.03$), endurance walk test (EWT) ($p=0.01$), Leicester Cough Questionnaire (LCQ) ($p<0.001$), and St. George's Respiratory Questionnaire (SGRQ) ($p<0.001$). At 12 weeks following the last training session, the experimental group also showed continued and significant improvement (relative to baseline values) for ISWT ($p=0.04$) and

EWT (p=0.003). LCQ and SGRQ also were significantly improved compared with baseline (p<0.001 for both measures). Limitations of this study included the lack of statistical comparisons between treatment and control groups, small study population, lack of blinding, and lack of clinically relevant primary outcome measures. Additional well-designed RCTs are necessary to confirm these initial findings.

An RCT by Lai and colleagues (2017) compared a preoperative, high-intensity, 7-day pulmonary rehabilitation program to standard care for 101 subjects preparing for lung cancer lobectomy. The primary endpoint was postoperative complications within 30 days of surgery, including atelectasis, acute respiratory distress syndrome, respiratory failure, mechanical ventilation, deep vein thrombosis/pulmonary embolism, and empyema/pneumonia. The researchers found that postoperative complications were significantly lower in the pulmonary rehabilitation group compared to the standard care group (5/51, 9.8% versus 14/50, 28%; p=0.019). In addition, the pulmonary rehabilitation group was able to walk further in 6 minutes (22.9 ± 25.9 m versus 4.2 ± 9.2 m), had better peak expiratory flow (increase of 25.2 ± 24.6 l/min versus 4.2 ± 7.7 l/min), and had a shorter postoperative hospital stay (6.1 ± 3.0 versus 8.7 ± 4.6 days; p=0.001). A total of 6 subjects did not complete the 7-day pulmonary rehabilitation program due to needing surgery early (2 cases), lack of endurance (2 cases), and perceived lack of benefit (2 cases). Overall, the researchers concluded that individuals with lung cancer benefit from a high-intensity, systematic, preoperative pulmonary rehabilitation program and have fewer postoperative complications.

In a joint consensus statement by the American Thoracic Society and the European Respiratory Society (2015), the following statement was made:

> PR has demonstrated effectiveness for several respiratory conditions other than COPD. Randomized controlled trials demonstrating its beneficial effects on exercise capacity, symptoms, and/or health-related quality of life are available in interstitial lung disease, bronchiectasis, asthma, cystic fibrosis, lung transplantation, lung cancer, and pulmonary hypertension.

In a joint guideline published by the American College of Chest Physicians and the Canadian Thoracic Society (2016), the following recommendations were made for individuals with severe, or very severe COPD:

- …a recent exacerbation (ie, ≤ 4 weeks), we recommend pulmonary rehabilitation to prevent acute exacerbations of COPD (Grade 1C)
- …an exacerbation greater than the past 4 weeks, we do not suggest pulmonary rehabilitation to prevent acute exacerbations of COPD (Grade 2B)

In a joint guideline by the American Thoracic Society and the European Respiratory Society (Wedzicha, 2017), the following statement was made:

> Pulmonary rehabilitation implemented within 3 weeks after discharge following a COPD exacerbation reduces hospital admissions and improves quality of life, while pulmonary rehabilitation implemented within 8 weeks after discharge increases exercise capacity.

Multiple systematic reviews have been published that support the efficacy of PR in managing COPD-related illnesses (Gordon, 2019; Lee, 2016; Lee, 2019; Mantoani, 2016; Meshe, 2016; Paneroni, 2017; Yang, 2019; Yu,

2019) including a Cochrane Review which included 20 studies representing a total of 1477 individuals (Puhan, 2016).

Frequency and duration of the program may vary according to the individual's needs. It is not uncommon for the person to receive therapy 3 times per week for 4 to 6 weeks.

The permanence of outcomes achieved by PR appears to be more related to the structure and duration of the supervised maintenance component of the program than the intensity of the program. The long-term outcome data are somewhat limited in this respect. To achieve sustained results, it is important that the person continues with the at-home regimen outlined in the PR program.

There is currently no evidence that repeat pulmonary rehabilitation programs result in additive long-term benefits in terms of dyspnea, exercise tolerance, or health-related quality of life (HR-QOL) measures.

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History

Status	Date	Action
Reviewed	05/14/2020	Medical Policy & Technology Assessment (MPTAC) review. References section updated.
Reviewed	06/06/2019	MPTAC review. References section updated.
Reviewed	07/26/2018	MPTAC review. The document header wording updated from "Current Effective Date" to "Publish Date." Discussion/General Information and References sections updated.
Reviewed	08/03/2017	MPTAC review. Updated Discussion/General Information and References section.
Reviewed	08/04/2016	MPTAC review. Updated Reference section. Removed ICD-9 codes from Coding section.
Revised	08/06/2015	MPTAC review. Reformatted criteria. Updated Background/Overview and References sections.

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Reviewed	08/18/2011	MPTAC review.
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	01/01/2010	Updated coding section with 01/01/2010 HCPCS changes.
Reviewed	08/27/2009	MPTAC review.
Reviewed	08/28/2008	MPTAC review.
	11/05/2007	Updated Reference section. Added 2007 ACCP/AACVPR recommendations.
Revised	08/23/2007	MPTAC review. Removed "superimposed cardiac disease" from medically necessary section. Updated reference section. Coding updated; removed HCPCS G0110-G0116 deleted 12/31/2005.
Reviewed	09/14/2006	MPTAC review. Updated references.
	11/21/2005	Added reference for Centers for Medicare and Medicaid Services (CMS) – National Coverage Determination (NCD).
Revised	09/22/2005	MPTAC review. Revision based on Pre-merger Anthem and Pre-merger WellPoint Harmonization.

Pre-Merger Organizations	**Last Review Date**	**Document Number**	**Title**
Anthem MidWest		RA-010	Pulmonary Rehab in Acute Inpatient Rehabilitation Setting
Anthem West		UMR.016	Pulmonary Rehabilitation
Anthem SouthEast		Memo 1121	Pulmonary Rehabilitation
Anthem New Hampshire			Pulmonary Rehabilitation
WellPoint Health Networks, Inc.	04/28/2005	2.05.10	Pulmonary Rehabilitation (Outpatient)