CLINICAL MEDICAL POLICY	
Policy Name:	Pulmonary Rehabilitation (PR)
Policy Number:	MP-058-MD-PA
Responsible Department(s):	Medical Management
Provider Notice/Issue Date:	05/01/2025; 05/01/2024; 04/01/2023; 04/01/2022; 03/19/2021; 03/16/2020; 06/17/2019; 07/15/2018
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Products:	Highmark Wholecare℠ Medicaid
Application:	All participating hospitals and providers
Page Number(s):	1 of 12

Policy History

Date	Activity
06/01/2025	Provider Effective date
04/18/2025	PARP Approval
02/19/2025	QI/UM Committee review
02/19/2025	Annual Review: No changes to clinical criteria. Updated 'Summary of Literature' section.
05/01/2024	Provider Effective date
03/08/2024	PARP Approval
02/21/2024	QI/UM Committee review
02/21/2024	Annual Review: Reformatted 'Procedures' section with new clinical criteria. Updated 'Summary of Literature' and 'Reference Sources' sections.
05/01/2023	Provider Effective date
03/10/2023	PARP Approval
02/15/2023	QI/UM Committee review
02/15/2023	Annual Review: Added 'post-COVID PR' section to 'Procedures' section with medical necessity guidance. Added 'Activities of Daily Living' to 'Definitions' section. Removed 'Covered', replaced with 'not medically necessary'. Updated 'Reference Sources' section.

05/01/2022	Provider Effective date
03/11/2022	PARP Approval
02/16/2022	QI/UM Committee review
02/16/2022	Annual Review: No changes to clinical criteria. Minor wording changes to the Procedures section. Added TAG determination information. Updated Summary of Literature and Reference Sources sections. HCPCS code G0424 was deleted as of 1/1/2022 and removed; CPT codes 94625 & 94626 were added.
05/12/2017	Initial policy developed

Disclaimer

Highmark Wholecare℠ medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

Policy Statement

Highmark Wholecare℠ may provide coverage under the medical-surgical benefits of the Company's Medicaid products for medically necessary pulmonary rehabilitation.

This policy is designed to address medical necessity guidelines that are appropriate for the majority of individuals with a particular disease, illness or condition. Each person's unique clinical circumstances warrant individual consideration, based upon review of applicable medical records.

(Current applicable Pennsylvania HealthChoices Agreement Section V. Program Requirements, B. Prior Authorization of Services, 1. General Prior Authorization Requirements.)

Definitions

Prior Authorization Review Panel (PARP) – A panel of representatives from within the Pennsylvania Department of Human Services who have been assigned organizational responsibility for the review, approval and denial of all PH-MCO Prior Authorization policies and procedures.

Pulmonary Rehabilitation (PR) – A multi-disciplinary program of care for patients with chronic respiratory impairment who are symptomatic and often have decreased daily life activities.

Chronic Obstructive Pulmonary Disease (COPD) – A common, preventable and treatable disease that is characterized by persistent respiratory symptoms and airflow limitation that is due to airway and/or alveolar abnormalities usually caused by significant exposure to noxious particles or gases and influenced by host factors including abnormal lung development. Significant comorbidities may have an impact on morbidity or mortality.

Forced Vital Capacity (FVC) – The volume of air that can be forcibly blown out after full inspiration, measured in liters. FVC is the most basic maneuver in spirometry tests.

Forced Expiratory Volume (FEV_1) – The amount of air that can be exhaled in the first second after taking the deepest breath possible. An important measurement in lung function, it can be used to measure the presence of lung disease or disease progression—the lower the value, the worse the disease.

Restrictive Pulmonary Disease – A disorder characterized by reduced lung volume, either because of an alteration in the lung itself or because of a condition that affects the mechanics of breathing (chest wall, muscles, etc.).

Lung Volume Reduction Surgery (LVRS) or Reduction Pneumoplasty – A procedure that is performed on patients with severe emphysema in order to allow the remaining compressed lung to expand and thus improve respiratory function.

Activities of Daily Living (ADL) - Activities of daily living are activities related to personal care. They include bathing or showering, dressing, getting in and out of bed or a chair, walking, using the toilet, and eating. If a person has difficulty performing an activity by himself/herself and without special equipment or does not perform the activity at all because of health problems, the person is deemed to have a limitation in that activity. The limitation may be temporary or chronic.

Procedures

Program Exception
Pulmonary rehabilitation requires a Program Exception. The ordering physician must provide a supporting statement indicating why the requested therapy is medically necessary, and any alternative options have been, or are likely to be, ineffective, adversely affect patient compliance, or cause an adverse reaction.

1. A single course of pulmonary rehabilitation (PR) in the outpatient ambulatory care setting may be considered medically necessary for ANY of the following indications:
    A. Treatment of chronic pulmonary disease for individuals with moderate to severe disease (see *Informational* section below) who are experiencing disabling symptoms and significantly diminished Quality of Life (QOL) despite optimal medical management; OR
    B. Pre-operative conditioning component for those considered appropriate candidates for lung volume reduction surgery or for lung transplantation; OR
    C. Following lung transplantation.

2. Comprehensive outpatient PR programs may include team assessment, individual training, psychosocial intervention, exercise training, and follow-up. PR program length may be considered medically necessary for up to 36 sessions, depending on program and may include the following:
    - Team assessment, may include input from:
        - Physician
        - Respiratory care practitioner
        - Nurse
        - Psychologist
        - Others as needed.
    - Individual training may include:
        - Breathing training

    - Bronchial hygiene
    - Medications
    - Proper nutrition
- Psychosocial intervention may address:
    - Support system
    - Dependency issues
- Exercise training includes strengthening and conditioning and may utilize the following:
    - Stair climbing
    - Inspiratory muscle training
    - Treadmill walking
    - Cycle training (with or without ergometer)
    - Supported and unsupported arm exercise training.
- Follow up may include supervised home exercise conditioning.

Note: Exercise conditioning is an essential component of PR. Education in disease management techniques without exercise conditioning does not improve health outcomes of individuals who have chronic obstructive pulmonary disease.

3. Post-COVID-19 Pulmonary Rehabilitation
   Any request for PR for post-COVID-19 patients will be reviewed for approval by a Medical Director on a case-by-case basis. The PR program must meet ALL of the program requirements listed above. One course (36 sessions) of outpatient PR may be considered medically necessary in patients with persistent symptoms after a COVID-19 diagnosis. To be considered medically necessary, ALL of the following symptoms must be present:
    A. Dyspnea; AND
    B. Desaturation; AND
    C. Persistent cough; AND
    D. Muscle weakness; AND
    E. Fatigue; AND
    F. Functional impairment.

4. Contraindications
    - Severe psychiatric disturbances (e.g., dementia, organic brain syndrome)
    - Significant or unstable medical conditions (e.g., congestive heart failure, acute or pulmonale, substance abuse, significant liver disease, metastatic cancer, disabling stroke)

5. When pulmonary rehabilitation services are not considered medically necessary
    - PR is considered not medically necessary for conditions other than those listed above because the scientific evidence has not been established.
    - Home-based PR programs are not considered medically necessary.
    - Home exercise equipment, physiotherapy, or personal comfort and/or convenience items are not considered medically necessary for PR programs.
    - Multiple courses of PR are considered experimental and investigational, either as maintenance therapy in patients who initially respond, or in patients who fail to respond, or whose response to an initial rehabilitation program has diminished over time. Multiple courses of PR program services and long-term rehabilitative services are not considered medically necessary.

6. Post-payment Audit Statement
   The medical record must include documentation that reflects the medical necessity criteria and is subject to audit by Highmark Wholecare℠ at any time pursuant to the terms of your provider agreement.

7. Place of Service
   The proper place of service for pulmonary rehabilitation is an outpatient program based in a hospital or clinic setting.

8. Length of Coverage
   PR program sessions are limited to a maximum of two 1-hour sessions per day, for up to 36 sessions in one course, with the option for an additional 36 sessions (not to exceed 72 sessions), if medically necessary. PR sessions that are greater than 36 sessions will require medical director review on a case-by-case basis.

Governing Bodies Approval

In 2007, the Centers for Medicare and Medicaid Services (CMS) determined that a national coverage determination (NCD) for pulmonary rehabilitation is not appropriate and placed the coverage responsibility on the local carriers' Local Coverage Determination (LCD). There are no current Pennsylvania LCDs based on pulmonary rehabilitation.

The Pennsylvania Department of Human Services Technology Assessment Group (TAG) workgroup meets quarterly to discuss issues revolving around new technologies and technologies or services that were previously considered to be a program exception. During this meeting, decisions are made as to whether or not certain technologies will be covered and how they will be covered. TAG's decisions are as follow:

- Option #1: Approved - Will be added to the Fee Schedule
- Option #2: Approved as Medically Effective - Will require Program Exception
- Option #3: Approved with (or denied due to) Limited/Minimal Evidence of Effectiveness - Will require Program Exception
- Option #4: Denied - Experimental/Investigational

As of April 2008, the TAG workgroup assigned pulmonary rehabilitation an Option # 3, specifically for HCPCS codes G0237, G0238, and G0239.

Program Exception
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Summary of Literature

Pulmonary diseases are some of the most common diseases in the world, affecting tens of millions of people in the United States. Pulmonary diseases may include asthma, COPD, chronic/acute bronchitis, emphysema, and cystic fibrosis. Pulmonary disease is a major cause of morbidity and mortality. Currently, pulmonary disease is the world's fourth leading cause of death and is projected to become the third leading cause of death by 2020. Cigarette smoking is the lead environmental risk factor of pulmonary disease. Other important risk factors include occupational and environmental exposures, age, gender, genetic and hereditary linking, lung development and growth, socioeconomic status, asthma, bronchitis, and infections (Global Initiative for Chronic Obstructive Lung Disease, 2017).

Treatment of pulmonary disease works to capture the underlying pathophysiology, such as removing the offending agent (e.g., smoking cessation), preventing complications, and treating complications related to the lung disease (e.g., suppression of bacterial infection). There are other interventions that positively impact disability associated with pulmonary disease which lead treatment through pulmonary rehabilitation (PR). The majority of chronic lung diseases are under the general heading of COPD, and a large portion of the evidence related to the benefits and effectiveness of PR comes from clinical trials involving COPD patients. The American Thoracic Society and the European Respiratory Society define 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, designed to improve the physical and psychological condition of people with chronic respiratory disease and to promote the long-term adherence to health-enhancing behaviors" (ATS & ERS, 2015).

The benefits of PR specifically for individuals diagnosed with COPD is significant and has been shown to be the most effective therapeutic strategy to improve shortness of breath, health status, and exercise tolerance.

PR does not replace current medical therapy but provides additional therapy services that include (CMS, 2012):

- Physician-prescribed exercise: Some aerobic exercise must be included in each PR session.
- Education or training closely and clearly related to the individual's care and treatment which is tailored to the individual's needs, including information on respiratory problem management and, if appropriate, brief smoking cessation counseling;
- Psychosocial assessment;
- Outcome assessment, and
- Individualized treatment plan describing the individual's diagnosis and details how components are utilized for each patient.

PR should be considered part of integrated patient management, and usually includes many healthcare professionals to ensure optimum coverage. There is a multidisciplinary team of health care professionals that may be included in the patient's PR treatment, including but not limited to physicians, nurses, respiratory therapists, occupational therapists, physical therapists, psychologists, exercise specialists, and dieticians. Optimum benefits are achieved from programs lasting 6 to 8 weeks, and there is no evidence that extending programs to 12 weeks or longer provides any advantages (GOLD, 2018).

Supervised exercise training twice weekly is recommended, and this may include any regimen from endurance training, resistance/strength training; upper and lower limbs ideally should be included as well as walking exercise, flexibility, inspiratory muscle training and neuromuscular electrical stimulation can also be incorporated. The PR intervention (scope, intensity) should be individualized to maximize personal functional gains. The benefits of PR specifically for COPD patients is considerable and has been shown to be the most effective therapeutic strategy to improve shortness of breath, health status, and exercise tolerance. (GOLD, 2018).

The majority of PR clinical studies are derived from hospital-based outpatient programs, not home-health programs. There is limited data on the comparison of home-based PR to hospital- or clinic-based PR, and the available studies are mostly of low quality. The evidence is insufficient to determine the effects of the technology on health outcome in the home setting.

According to the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) (2006), "Evidence-based support for pulmonary rehabilitation in the management of patients with chronic respiratory disease has grown tremendously." PR has been proven to reduce dyspnea, increase exercise performance, and improve health-related quality of life (ATS, 2006). PR also demonstrates physiological, symptom-reducing, psychosocial, and health economic benefits for patients with chronic pulmonary diseases, but is severely underutilized in health care (Rochester, 2015).

The American Association for Respiratory Care (AARC) (2014) position statement on pulmonary rehabilitation indicates the program is a "physician-supervised, evidence-based, multifaceted approach to providing services designed for persons with pulmonary disease and their families." The AARC states PR "should be included in the management of patients with pulmonary disease. Pulmonary Rehabilitation is an evidence-based component of care in COPD management." (AARC, 2019). In addition to chronic pulmonary disease, PR programs improve the success of patients preparing or recovering from lung-volume reduction surgery (LVRS) or lung transplantation. Most patients in the surgical category have severe ventilatory limitation, ventilatory disability, and are at high risk of preoperative and postoperative complications (Rochester, 2008).

There has been a large increase in pulmonary rehabilitation referrals due to the high quality of the clinical trials which used valid, reproducible, and interpretable outcome measures (ATS, 2006). There were numerous published randomized controlled trials (RCTs) that focused on introducing PR for COPD patients and developed supporting evidence for PR benefits. Most recently, there was a Cochrane review that evaluated PR programs for patients who had an exacerbation of COPD (Puhan et al., 2016). PR participants showed significant reduction in the rate of hospital admissions, baseline improvements, and significant improvements in health-related quality of life (Puhan et al., 2016).

Smoking is a highlighted topic that is debated among scholarly research and clinical trials for pulmonary rehabilitation programs. There are many differing recommendations surrounding patients that are actively smoking while participating in pulmonary rehabilitation programs. According to the American Thoracic Society (2006), there are some PR programs that disqualify current smokers, but there is no evidence that short-term outcomes are different between smokers and nonsmokers. The Journal of Cardiopulmonary Rehabilitation developed an article surrounding smoking cessation, and the research shows that many patients have quit smoking at PR enrollment, but the inclusion of smokers in PR programs remains controversial (Lacasse, 2002). The collective consensus surrounding smoking status has positioned many pulmonary rehabilitation policies not to exclude smokers but to offer smoking cessation counseling during the PR treatment.

There is supportive evidence for outpatient PR patients preparing for, or recovering from, lung volume reduction surgery (LVRS) or lung transplantation which includes RCTs and observational studies (Rochester, 2008). Preoperative LVRS patients can achieve benefits from PR programs through an improved peak work rate, 6-minute-walk distance, maximum oxygen consumption, endurance time, muscle strength, quality of life, and dyspnea (Rochester, 2008). Postoperative LVRS and lung transplantation patients can achieve benefits from PR programs for optimized recovery and functional status as well as improving exercise impairment, transplantation drug anemia and/or vasodilation, and skeletal-muscle functionality (Rochester, 2008).

The benefits of pulmonary rehabilitation decline over time, which is evident by observational studies that showed success at the end of a PR course, but the success rate and patient improvement of additional courses decreased (Celli, 2017).

Some challenges with PR may include the uptake and completion are frequently limited, partly through provider ignorance as well as patients' lack of awareness or benefits. A major barrier to full participation is access, which may be limited by geography, culture, finances, transport, and other logistics. Another challenge is that the benefits of PR tend to wane over time. Long-term maintenance PR may sustain the benefits achieved after completion of the initial PR program, although one study reported weakening during follow-up. Long-term maintenance should target health behavior taking into consideration the patient's own preferences, needs and personal goals (GOLD, 2018).

Coding Requirements

Procedure Codes

CPT/HCPCS Code	Description
94625	Physician or other qualified health care professional services for outpatient pulmonary rehabilitation; without continuous oximetry monitoring (per session)
94626	Physician or other qualified health care professional services for outpatient pulmonary rehabilitation; with continuous oximetry monitoring (per session)
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 G2037, 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	Pre-operative pulmonary surgery services for preparation for LVRS, complete course of services, to include a minimum of 16 days of services
G0303	Pre-operative pulmonary surgery services for preparation for LVRS, 10 to 15 days of services
G0304	Pre-operative 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
S9473	Pulmonary rehabilitation program, nonphysician provider, per diem

Diagnosis Codes

ICD-10 Code	Description
D86.0	Sarcoidosis of the lung
D86.2	Sarcoidosis of the lung with sarcoidosis of lymph nodes
E84.0	Cystic fibrosis with pulmonary manifestations
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
J60	Coalworker's pneumoconiosis
J61	Pneumoconiosis due to asbestos and other mineral fibers
J62.0	Pneumoconiosis due to talc dust
J62.8	Pneumoconiosis due to other dust containing silica
J63.0	Aluminosis (of lung)
J63.1	Bauxite fibrosis (of lung)
J63.2	Berylliosis
J63.3	Graphite fibrosis (of lung)
J63.4	Siderosis
J63.5	Stannosis
J63.6	Pneumoconiosis due to other specified inorganic dusts
J64	Unspecified Pneumoconiosis
J65	Pneumoconiosis associated with tuberculosis
J66.0	Byssinosis
J66.1	Flax-dressers' disease
J66.2	Cannabinosis
J66.8	Airway disease due to other specific organic dusts
J84.10	Pulmonary fibrosis, unspecified
J84.112	Idiopathic pulmonary fibrosis
J84.170	Other interstitial pulmonary diseases with fibrosis in diseases classified elsewhere
J84.89	Other specified interstitial pulmonary diseases
J95.1	Acute pulmonary insufficiency following thoracic surgery
J95.2	Acute pulmonary insufficiency following nonthoracic surgery

J95.3	Chronic pulmonary insufficiency following surgery
J95.821	Acute postprocedural respiratory failure
J95.822	Acute and chronic postprocedural respiratory failure
J96.00	Acute respiratory failure, unspecified whether with hypoxia or 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
Z48.24	Encounter for aftercare following lung transplant
Z48.280	Encounter for aftercare following heart-lung transplant
Z76.82	Awaiting organ transplant
Z87.09	Personal history of other diseases of the respiratory system
Z94.2	Lung transplant status
Z94.3	Heart and lungs transplant status

Informational

Classification of COPD

Classification of Severity of Airflow Limitation Severity in COPD (Based on Post-Bronchodilator FEV_1)		
In patients with FEV_1 / FVC < 0.70:		
GOLD 1	Mild	$FEV_1 \geq 80\%$ predicted
GOLD 2	Moderate	$50\% \leq FEV_1 < 80\%$ predicted
GOLD 3	Severe	$30\% \leq FEV_1 < 50\%$ predicted
GOLD 4	Very severe	$FEV_1 < 30\%$ predicted

Reference: *Modified from GOLD Global strategies for the diagnosis, management, and prevention of chronic obstructive pulmonary disease updated 2020*

Reimbursement

Participating facilities will be reimbursed per their Highmark Wholecare℠ contract.

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