



# CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all health benefit plans administered by CIGNA Companies including plans formerly administered by Great-West Healthcare, which is now a part of CIGNA.

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Subject **Pulmonary Rehabilitation**

## Table of Contents

Coverage Policy .....	1
General Background .....	2
Coding/Billing Information .....	6
References .....	7
Policy History .....	9

## Hyperlink to Related Coverage Policies

- Inpatient Acute Rehabilitation
- Lung and Heart-Lung Transplantation
- Lung Volume Reduction Surgery
- Peak Flow Meters

### INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. In certain markets, delegated vendor guidelines may be used to support medical necessity and other coverage determinations. Proprietary information of CIGNA. Copyright ©2011 CIGNA

## Coverage Policy

Under many benefit plans, coverage for pulmonary rehabilitation programs is subject to the terms, conditions and limitations of the Short-Term Rehabilitative Therapy benefit as described in the applicable plan's schedule of copayments. Please refer to the applicable benefit plan document to determine benefit availability and the terms, conditions and limitations of coverage.

Outpatient pulmonary rehabilitation is the most medically appropriate setting for these services unless the individual independently meets coverage criteria for a different level of care.

Many benefit plans have exclusion language and/or limitations that impact coverage of pulmonary rehabilitation, including any or all of the following:

- A maximum allowable pulmonary rehabilitation benefit for duration of treatment or number of visits. When this is present and the maximum allowable benefit is exhausted, coverage will no longer be provided even if the medical necessity criteria described below are met.
- Specific coverage exclusions for maintenance or preventive care consisting of routine, long-term, or non-medically necessary care provided to prevent recurrences or to maintain the member's current status.

If coverage is available for pulmonary rehabilitation, the following conditions of coverage apply. CIGNA covers a pulmonary rehabilitation evaluation as medically necessary for the assessment of a respiratory impairment.

CIGNA covers a comprehensive, individualized, goal-directed program of outpatient pulmonary rehabilitation as medically necessary when BOTH of the following criteria are met:

- **The individual has EITHER of the following:**
  - chronic pulmonary disease (e.g., ~~severe~~ asthma, bronchiectasis, bronchiolitis obliterans, chronic bronchitis, cystic fibrosis, emphysema, interstitial lung disease)
  - impaired pulmonary function that stems from restrictive conditions (e.g., neuromuscular disorders, thoracic cage abnormalities)
- **The individual has moderate to moderately severe respiratory impairment as evidenced by ALL of the following:**
  - persistent or recurrent symptoms with frequent exacerbations despite optimal medical management (e.g., bronchodilators, oxygen)
  - forced expiratory volume [FEV<sub>1</sub>] or peak expiratory flow [PEF] < 60% predicted, PEF variability > 30%)
  - chronic functional disability limiting the ability to complete age-appropriate activities of daily living (ADLs)

CIGNA covers a comprehensive, individualized, goal-directed program of outpatient pulmonary rehabilitation as a medically necessary pre- and postoperative intervention for lung transplantation and lung volume reduction surgery (LVRS).

CIGNA does not cover pulmonary rehabilitation for the following as they are excluded from many benefit plans and considered not medically necessary when used for these purposes:

- treatment provided to prevent or slow deterioration in function or prevent reoccurrences
- treatment intended to improve or maintain general physical condition
- long-term rehabilitative services when significant therapeutic improvement is not expected

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## General Background

Pulmonary rehabilitation (PR) is a widely accepted therapeutic tool used to improve the quality of life and functional capacity of individuals with chronic lung disease. It is a multidisciplinary, comprehensive program of care that is individually tailored and designed to optimize autonomy and physical performance in patients with chronic respiratory impairment. PR can alleviate symptoms and optimize physical and psychological functioning when used in conjunction with standard medical therapy for chronic lung disease. The goal of PR is to help the individual achieve the highest level of independent functioning by improving pulmonary function, increasing exercise endurance and exercise work capacity, reducing dyspnea and normalizing blood gases. The major components of PR include exercise training or physical reconditioning; skills training; disease education; nutritional counseling; and psychosocial support. The multidisciplinary team of healthcare professionals may include physicians; nurses; respiratory, physical and occupational therapists; psychologists; exercise specialists; and dieticians.

Settings for PR include inpatient, outpatient and home-based programs. Outpatient pulmonary rehabilitation is the most widely available of settings and may be hospital or community based. The majority of studies describing the benefits of pulmonary rehabilitation are derived from hospital-based outpatient programs. Exercise training is an essential component of PR. The optimal training duration for exercise training in COPD has not been established. However, most programs include exercise sessions of ≥30 minutes, 2–5 times per week, for 6-12 weeks, with most programs lasting six weeks (Nici, et al., 2006). There is little consensus on the optimal program duration. Programs should be individualized with attainable and measurable long- and short-term goals. Significant therapeutic improvement should be expected as a result of program participation. If

measurable improvement in functional ability is not demonstrated within the first two weeks, the clinical appropriateness and utility of the program should be re-evaluated and other interventions should be explored. Clinical information required to support the appropriateness of PR may include results from pulmonary function and cardiac testing, along with evidence of compromised activities of daily living (ADLs) and of the ability to participate actively in a comprehensive, goal-directed program. Potential contraindications to PR include the following comorbidities:

- active infection
- acute cor pulmonale
- exacerbation of intercurrent illness
- recent myocardial infarction
- severe pulmonary hypertension
- significant hepatic dysfunction
- uncontrolled hypertension
- unstable angina
- unstable cardiovascular condition

Because most chronic lung diseases fall under the general heading of chronic obstructive pulmonary disease (COPD), the vast majority of evidence supporting the use of PR comes from trials involving COPD patients. The Global Initiative for Chronic Obstructive Lung Disease (GOLD) defines COPD as a preventable and treatable disease with some significant extra-pulmonary effects that may contribute to the severity in individual patients. The pulmonary component of COPD is characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lung to noxious particles or gases. The spirometric classification of severity of COPD includes four stages (GOLD, 2006):

- Stage I: Mild COPD - Characterized by mild airflow limitation ( $FEV_1/FVC < 0.70$ ;  $FEV_1 \geq 80\%$  predicted). Symptoms of chronic cough and sputum production may be present, but not always. At this stage, the individual is usually unaware that his or her lung function is abnormal.
- Stage II: Moderate COPD - Characterized by worsening airflow limitation ( $FEV_1/FVC < 0.70$ ;  $50\% \leq FEV_1 < 80\%$  predicted), with shortness of breath typically developing on exertion and cough and sputum production sometimes also present. This is the stage at which patients typically seek medical attention because of chronic respiratory symptoms or an exacerbation of their disease.
- Stage III: Severe COPD - Characterized by further worsening of airflow limitation ( $FEV_1/FVC < 0.70$ ;  $30\% \leq FEV_1 < 50\%$  predicted), greater shortness of breath, reduced exercise capacity, fatigue, and repeated exacerbations that almost always have an impact on patients' quality of life.
- Stage IV: Very Severe COPD - Characterized by severe airflow limitation ( $FEV_1/FVC < 0.70$ ;  $FEV_1 < 30\%$  predicted or  $FEV_1 < 50\%$  predicted, plus the presence of chronic respiratory failure).

Most patients with obstructive lung disease will have a forced expiratory volume in one second ( $FEV_1$ )  $< 60\%$  of predicted. Smoking prevention and smoking cessation remain central to comprehensive COPD management (ZuWallack and Hedges, 2008).

PR is also typically a pre- and post-operative intervention for patients undergoing lung transplantation and lung volume reduction surgery (LVRS). PR prior to pulmonary surgery may stabilize or improve patients' exercise tolerance, as well as teach techniques that will assist with postoperative recovery.

### **Literature Review**

A Cochrane review of six randomized controlled trials (RCTs) (n=219) by Puhan et al. (2009) examined the effects of inpatient and outpatient PR after COPD exacerbations on future hospitalizations, mortality, health-related quality of life (HRQOL) and exercise capacity. PR in was found to improve exercise capacity and HRQOL and to significantly reduce mortality and hospital admissions. Study results in a Cochrane review (n=31 RCTs) by Lacasse et al. (2006) demonstrated clinically and statistically significant improvements in dyspnea

fatigue and mastery. These results were reported to strongly support PR, including at least four weeks of exercise training as part of the management for individuals with COPD.

The Agency for Healthcare Research and Quality (AHRQ) technology assessment found exercise-based PR to be effective in improving disease-specific HRQOL, as well as their functional and maximal exercise capacity. Most of the trials were small and many of them had major methodological shortcomings. Analyses of these trials did not identify statistically significant differences between PR protocols that included only exercise training versus protocols that also included additional, nonexercise-based components.(AHRQ, 2006).

Although the setting, structure, and duration of PR programs vary between studies, a number of RCTs (Eaton, et al., 2009; O'Neill, et al., 2007; Sewell, et al., 2006; Maltais, et al., 2005; Man, et al., 2004; Berry, et al., Salman, et al., 2003) support the conclusion that PR is associated with improved symptoms and quality of life in patients with chronic respiratory disease.

### **Professional Societies/Organizations**

In 2010, the Centers for Medicare & Medicaid Services (CMS) issued changes to their policy on PR services. According to CMS, PR programs must include the following components:

- physician-prescribed exercise with some aerobic exercise 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
- outcomes assessment
- an individualized treatment plan detailing how components are utilized for each patient.

Additionally, CMS has stated that PR program sessions are limited to a maximum of 2 1-hour sessions per day for up to 36 sessions, with the option for an additional 36 sessions if medically necessary. Pulmonary rehabilitation services must be furnished in a physician's office or a hospital outpatient setting (CMS, 2010).

The National Institute for Clinical Excellence (NICE) guideline for the management of COPD states that PR should be made available to all appropriate patients with COPD. PR should be offered to all patients who consider themselves functionally disabled by this disease. PR is not suitable for patients who have unstable angina, have had a recent myocardial infarction or who are unable to walk. PR programs should include multidisciplinary interventions which are tailored to the individual patient's needs. The rehabilitation process should incorporate a program of physical training, disease education, nutritional, psychological and behavioral intervention (NICE, 2010).

The 2009 Institute of Clinical Systems Improvement (ICSI) COPD guideline states that indications for referral to PR include the following:

- symptomatic COPD (characterized by airway obstruction and reduced expiratory airflow)
- functional limitations that affect quality of life
- a medical regimen that has been maximized (e.g., bronchodilator, oxygen therapy)
- ability to learn about the disease; patients who are mentally capable of learning about their disease have improved outcome including decreased anxiety and fear
- motivated to participate in a PR program

Relative contraindications for participation in PR include patients with conditions such as coronary artery disease, cognitive impairment interfering with learning, severe psychiatric disturbances or conditions that might place the patient at risk during exercise training. Many patients with COPD have a history of cigarette smoking and are at risk for heart disease. Cardiac and pulmonary stress testing should be routinely performed to exclude silent cardiac disease and assure safety during exercise training (ICSI, 2009).

The ACCP/AACVPR issued evidence-based guidelines for PR for patients with chronic lung disease. Based on their review of the scientific evidence, the ACCP/AACVPR stated that PR is appropriate for any stable patient with COPD who is disabled by respiratory symptoms, including patients with other non-COPD-related

respiratory diseases, such as asthma, lung cancer, and pulmonary fibrosis. The primary goal of PR is to restore the patient to the highest possible level of independent function. The guidelines emphasize that strength and endurance training, lower and upper extremity exercise training, as well as education about self-management of the disease are essential features of a comprehensive PR program. A program of exercise training of the muscles of ambulation is recommended as a mandatory component of PR. The guidelines state that although there is no consensus of opinion regarding the optimal duration or PR intervention, 6–12 weeks of PR produces benefits in several outcomes (e.g., exercise tolerance, HRQOL, anxiety, depression). These benefits were found to gradually decline over 12 to 18 months; therefore, maintenance strategies following rehabilitation are advised. According to the ACCP/AACVPR, PR has emerged as a recommended standard of care for patients with chronic lung disease based on a growing body of scientific evidence (Ries, 2007).

In a clinical practice guideline, the American College of Physicians (ACP) presented a review of the available evidence on the diagnosis and management of COPD. The ACP found moderate evidence to support the use of PR programs for patients with severe airway obstruction, because such programs reduce hospitalizations and improve health status and exercise capacity. According to the ACP guideline, clinicians should consider prescribing PR in symptomatic individuals with COPD who have an FEV<sub>1</sub> less than 50% predicted (Qaseem, et al., 2007).

A consensus report issued by the GOLD entitled "Global Strategy for the Diagnosis, Management, and Prevention of COPD" states that the management strategy for COPD should be based on an individualized assessment of disease severity and should include education, pharmacological therapy, smoking cessation, oxygen therapy and PR. PR reduces symptoms, improves quality of life, and increases physical and emotional participation in daily activities. To accomplish these results, PR covers a range of nonpulmonary problems, including exercise deconditioning, relative social isolation, depression, muscle-wasting and weight loss. COPD patients at all stages of disease can benefit from exercise training programs, improving exercise tolerance, and decreasing symptoms of dyspnea and fatigue. GOLD highlights the importance of smoking cessation as the single most effective way to reduce the risk of developing COPD and stop its progression (GOLD, 2006).

In June 2006, the American Thoracic Society (ATS) and the European Respiratory Society (ERS) jointly updated their positions on PR. The ATS/ERS state that regardless of the type of chronic respiratory disease, patients experience a substantial morbidity from secondary impairments such as cardiac, nutritional and psychosocial dysfunction, as well as suboptimal self-management. Therefore, PR may be of value for all patients in whom respiratory symptoms are associated with decreased functional capacity or reduced HRQL. The timing of PR should be based on the clinical status of the individual and should no longer be viewed as a last resort for patients with severe respiratory impairment. PR should be an integral part of the clinical management of all patients with chronic respiratory disease, addressing their functional and/or psychological deficits (Nici, et al., 2006).

According to the American Association for Respiratory Care (AARC), evidence exists for the effectiveness of PR with respect to exercise tolerance, utilization of health care resources, and quality of life. There is some evidence that PR rehabilitation may improve survival in patients with COPD. The indications for PR include the presence of respiratory impairment potentially responsive to the techniques available. Such impairment may be manifested as:

- dyspnea experienced during rest or exertion
- hypoxemia, hypercapnia
- reduced exercise tolerance or a decline in the patient's ability to perform ADLs
- an unexpected deterioration or worsening symptoms against a background of long-standing dyspnea and a reduced but stable exercise tolerance level
- the need for surgical intervention (pre- and postoperative lung resection, transplantation, or volume reduction)
- chronic respiratory failure and the need to initiate mechanical ventilation
- ventilator dependence
- increasing need for acute care intervention, including emergency room visits, hospitalizations, and unscheduled physician office visits

Potential contraindications to PR include ischemic cardiac disease, acute cor pulmonale, severe pulmonary hypertension, significant hepatic dysfunction, metastatic cancer, renal failure, severe cognitive deficit, and psychiatric disease that interferes with memory and compliance. The decision to provide or withhold PR should be based on a thorough, individualized assessment (AARC, 2002).

### Summary

Evidence in the published, scientific, peer-reviewed literature indicates that the use of a comprehensive program of pulmonary rehabilitation (PR) for a subset of patients with chronic pulmonary diseases and to indicate that PR can improve exercise tolerance and symptoms of dyspnea, as well as enhance health-related quality of life. Although PR is used primarily for patients with chronic obstructive pulmonary disease (COPD), it is also used in patients with other chronic lung conditions, such as interstitial diseases, asthma, cystic fibrosis, bronchiectasis, thoracic cage abnormalities, ventilator dependency and neuromuscular disorders. In addition, PR is part of the evaluation, preparation for, and recovery from surgical intervention such as lung transplantation and lung volume reduction surgery (LVRS).

### Coding/Billing Information

**Note:** This list of codes may not be all-inclusive.

**Covered when medically necessary:**

HCPSC Codes	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	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
G0424	Pulmonary rehabilitation, including exercise (includes monitoring), one hour, per session, up to 2 sessions per day
S9473	Pulmonary rehabilitation program, non-physician provider, per diem

ICD-9-CM Diagnosis Codes	Description
135	Sarcoidosis
273.4	Alpha-1-antitrypsin deficiency
277.02	Cystic fibrosis with pulmonary manifestations
491.21	Obstructive chronic bronchitis, with (acute) exacerbation
491.8	Other chronic bronchitis
491.9	Unspecified chronic bronchitis
492.8	Emphysema
493.00 - 493.02	Extrinsic asthma
493.10 - 493.12	Intrinsic asthma

493.20 – 493.22	Chronic obstructive asthma
493.82	Cough variant asthma
493.90 – 493.92	Unspecified asthma
494.0 – 494.1	Bronchiectasis
496	Chronic airway obstruction, not elsewhere classified
515	Postinflammatory pulmonary fibrosis
518.1	Interstitial emphysema
518.5	Pulmonary insufficiency following trauma and surgery
518.81 – 518.84	Acute respiratory failure
720.0	Ankylosing spondylitis
733.90	Disorder of bone and cartilage, unspecified
748.61	Congenital bronchiectasis
770.7	Chronic respiratory disease arising in the perinatal period
V42.6	Lung replaced by transplant
	Multiple/varied codes

**\*Current Procedural Terminology (CPT®) © 2010 American Medical Association: Chicago, IL.**

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## Policy History

<b>Pre-Merger Organizations</b>	<b>Last Review Date</b>	<b>Policy Number</b>	<b>Title</b>
CIGNA HealthCare	9/15/2008	0212	Pulmonary Rehabilitation

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