INSTRUCTIONS FOR USE
The following Coverage Policy applies to health benefit plans administered by Cigna Companies. Certain Cigna Companies and/or lines of business only provide utilization review services to clients and do not make coverage determinations. References to standard benefit plan language and coverage determinations do not apply to those clients. Coverage Policies are intended to provide guidance in interpreting certain standard benefit plans administered by Cigna Companies. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement, 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 supersedes 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.

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 group therapy and 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.
A pulmonary rehabilitation evaluation is considered medically necessary for the assessment of a respiratory impairment.

A comprehensive, individualized, goal-directed program of outpatient pulmonary rehabilitation is considered medically necessary when BOTH of the following criteria are met:

- The individual has EITHER of the following:
  - chronic pulmonary disease (e.g., asthma, bronchiectasis, bronchiolitis obliterans, chronic bronchitis, cystic fibrosis, emphysema, interstitial lung disease)
  - impaired pulmonary function that stems from restrictive lung disease or other conditions impacting ventilation (e.g., neuromuscular disorders, thoracic cage abnormalities such as ankylosing spondylitis, sarcoidosis, lung cancer)

- 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 [FEV₁] 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)

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

Pulmonary rehabilitation for the following purposes are excluded from many benefit plans and considered not medically necessary:

- 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

Overview

This Coverage Policy addresses pulmonary rehabilitation which is a program of care for those with certain categories of chronic respiratory diseases who have symptoms that impact activities of daily living.

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. The definition of PR has been more recently updated to include the promotion of "long-term adherence to health-enhancing behaviors" (Spruit, et al., 2013). 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 (Rabe, et al., 2007):

- **Stage I: Mild COPD** - Characterized by mild airflow limitation (FEV\(_1\)/FVC < 0.70; FEV\(_1\)≥ 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% ≤ 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% ≤ 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).

More recently, the use of "stage" has been abandoned and changed to “grade” (Vespo, et al., 2013).

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). Although PR efforts are often focused on patients with COPD (e.g., chronic bronchitis and/or emphysema), other conditions appropriate for this process include, but are not limited to,
patients with asthma, interstitial disease, bronchiectasis, cystic fibrosis, chest wall diseases, neuromuscular disorders, ventilator dependency, lung cancer, and before and after lung surgery for transplantation or volume reduction. 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**

McCarthy et al. (2015) performed a Cochrane review to compare the effects of PR and conventional care on health-related quality of life and functional and maximal exercise capacity in COPD patients. This updated review included additional RCTs (n=34 studies) in addition to the 31 RCTs included in the previous review (i.e., Lacasse, et al., 2006), resulting in a total of 65 RCTs/3822 participants for meta-analysis. Statistically significant improvement for all outcomes was found in favor of PR. It was concluded that PR relieves dyspnea and fatigue, improves emotional function and enhances the sense of control that individuals have over their condition. The improvements were reported to be moderately large and clinically significant (McCarthy, et al., 2015).

A Cochrane review of six randomized controlled trials (RCTs) (n=219 patients) 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**

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 (Spruit, et al., 2013; Nici, et al., 2006).

In 2012, the American Thoracic Society (ATS) issued an official society statement on the management of dyspnea. According to the ATS, “pulmonary rehabilitation is an integral component of the management of patients with chronic lung disease. Among the beneficial effects of pulmonary rehabilitation include a reduction in exertional dyspnea during exercise and improved exercise tolerance, as well as decreases in self-reported dyspnea with activity. There is evidence that patients with COPD who undergo six weeks of exercise training experience comparable small decreases in dyspnea intensity, regardless of whether or not they demonstrate improved exercise capacity” (Parshall, et al., 2012).

A joint clinical practice guideline from the American College of Physicians (ACP), American College of Chest Physicians (ACCP), American Thoracic Society (ATS), and European Respiratory Society (ERS) recommends that pulmonary rehabilitation be prescribed for symptomatic COPD patients with an FEV$_1$<50% predicted (Grade:
strong recommendation, moderate-quality evidence). The guideline states that PR be considered for symptomatic or exercise-limited patients with an FEV₁>50% predicted (Qaseem, et al., 2011).

In 2010, the Centers for Medicare & Medicaid Services (CMS) issued changes to their policy on PR services. CMS stated that 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 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).

Use Outside of the US

A consensus report issued by 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 status. An update of the report states that FEV₁ alone may no longer be a reliable indicator of breathlessness, exercise limitation, and impairment of health status. Additional tools such as disease-specific health-related quality of life questionnaires, the COPD Assessment Test, and the COPD Control questionnaire provide a more a more comprehensive assessment. Interventions for stable COPD should include pharmacological therapy, smoking cessation, oxygen therapy and PR. The primary goals of PR are to reduce symptoms, improve quality of life, and increase 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. However, evidence supporting the effectiveness of PR is particularly for individuals with moderate to severe disease. Optimum benefits are typically achieved from programs lasting six to eight weeks, and there is no evidence to indicate that extending the program beyond 12 weeks provides advantages (GOLD, 2017).

The British Thoracic Society (BTS) evidence-based guideline on pulmonary rehabilitation in adults states that a supervised pulmonary rehabilitation program should be offered to COPD patients with the goal of improving exercise capacity, dyspnea and health status, and psychological well-being. According to the BTS, PR programs should consist of a minimum of two supervised sessions per week. Programs of six to 12 weeks duration are recommended. The BTS further states that repeat PR may be considered in patients whose PR was greater than one year previously, however PR may be unlikely to be of benefit if the previous course of rehabilitation was unsuccessful (Bolton, et al., 2013).
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).

**Coding/Billing Information**

**Note:**
1) This list of codes may not be all-inclusive.
2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

**Considered Medically Necessary when criteria in the applicable policy statements listed above are met:**

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<thead>
<tr>
<th>HCPCS Codes</th>
<th>Description</th>
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<tbody>
<tr>
<td>G0237</td>
<td>Therapeutic procedures to increase strength or endurance of respiratory muscles, face to face, one on one, each 15 minutes (includes monitoring)</td>
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<tr>
<td>G0238</td>
<td>Therapeutic procedures to improve respiratory function, other than described by G0237, one on one, face to face, per 15 minutes (includes monitoring)</td>
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<tr>
<td>G0302</td>
<td>Pre-operative pulmonary surgery services for preparation for LVRS, complete course of services, to include a minimum of 16 days of services</td>
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<tr>
<td>G0303</td>
<td>Pre-operative pulmonary surgery services for preparation for LVRS, 10 to 15 days of services</td>
</tr>
<tr>
<td>G0304</td>
<td>Pre-operative pulmonary surgery services for preparation for LVRS, 1 to 9 days of services</td>
</tr>
<tr>
<td>G0305</td>
<td>Post-discharge pulmonary surgery services after LVRS, minimum of 6 days of services</td>
</tr>
<tr>
<td>G0424</td>
<td>Pulmonary rehabilitation, including exercise (includes monitoring), one hour, per session, up to two sessions per day</td>
</tr>
<tr>
<td>S9473</td>
<td>Pulmonary rehabilitation program, non-physician provider, per diem</td>
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**Group therapy excluded under most benefit plans:**

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<th>HCPCS Codes</th>
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<tr>
<td>G0239</td>
<td>Therapeutic procedures to improve respiratory function or increase strength or endurance of respiratory muscles, two or more individuals (includes monitoring)</td>
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**ICD-9-CM Diagnosis Codes**

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**ICD-10-CM Diagnosis Codes**

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References


