Overview

Chronic obstructive pulmonary disease (COPD) is a lung disease characterized by chronic obstruction of lung airflow that is not fully reversible. The most common symptoms of COPD are chronic and progressive dyspnea (difficult or labored breathing), cough and sputum production. Chronic cough and sputum production may precede the development of airflow limitation by many years. This pattern offers a unique opportunity to identify smokers and others at risk for COPD, and to intervene when the disease is not yet a major health problem. Unfortunately, COPD in its early stages is usually not diagnosed because symptoms start gradually and progress over the course of years. Patients often modify their lifestyle to minimize dyspnea and ignore cough and sputum production. The primary cause of COPD is tobacco smoke (including second-hand or passive exposure). Other risk factors for COPD include poorly ventilated woodstoves and the burning of biomass, occupational dusts and chemicals, and frequent lower respiratory infections during childhood.

The diagnosis and continuing assessment of COPD is performed with a simple test called spirometry. Spirometry measures the volume of air forcibly exhaled from the point of maximal inspiration (FVC) and the volume of air exhaled during the first second of this maneuver (FEV1), and the ratio of these two measurements (FEV1/FVC) is calculated. The presence of a post-bronchodilator FEV1/FVC < 70.0 confirms the presence of persistent airflow limitation and thus of COPD.

The severity of COPD is classified into four stages based on spirometry:

- **Stage I:** mild COPD characterized by mild airflow limitation (FEV1/FVC < 0.70, FEV1 >/= 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 (FEV1/FVC < 0.70, 50% </= FEV1 < 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 (FEV1/FVC < 0.70, 30% </= FEV1 < 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 (FEV1/FVC < 0.70, FEV1 < 30% predicted or FEV1 < 50% predicted plus the presence of chronic respiratory failure). At this stage, quality of life is very appreciably impaired and exacerbations may be life threatening.

No treatment has been shown to impact the long-term decline in lung function that is the hallmark of this disease. The management of COPD is based on an individualized
assessment of disease severity and response to various therapies. The following treatments may help to decrease symptoms and/or complications and increase quality of life:

- Smoking cessation
- Oral and inhaled medications
- Oxygen therapy
- Influenza and pneumococcal vaccination
- Health education
- Exercise training

Pulmonary rehabilitation has been defined as a multidimensional continuum of services directed to persons with pulmonary disease and their families, usually by an interdisciplinary team of specialists, with the goal of achieving and maintaining the individual’s maximum level of independence and functioning in the community. The principal goals of pulmonary rehabilitation are to reduce symptoms, improve quality of life, and increase physical and emotional participation in everyday activities. Pulmonary rehabilitation is most successful when provided by a physician led interdisciplinary team that includes a physical therapist, occupational therapist, psychologist, respiratory therapist, exercise physiologist, registered dietician, and pharmacist. The interdisciplinary team approach ensures that all the needs of the patient are met.

Comprehensive pulmonary rehabilitation must include all of the following components:

- Physician-supervision (general physician supervision rather than direct physician supervision) interdisciplinary program at least 6 weeks in length.
- Baseline assessment with Individualized treatment plan which includes but is not limited to physician-prescribed exercise, psychosocial and behavioral interventions, and individualized goals.
- Health education.
- Outcome assessment.

Pulmonary rehabilitation is not beneficial for every patient. Patient-related limitations of pulmonary rehabilitation include:

- The patient may have a disease process that has progressed to the stage where rehabilitation is not possible.
- The patient may not adhere to or complete the program because it appears to be complicated or because of a sense of hopelessness, depression, or a lack of motivation.
- The patient/patient family may be reluctant to make changes in their usual program, medications, start new therapy, quit smoking, use supplemental oxygen, or exercise.
- There might be concerns or limitations in transportation.
- The patient may have to stop the program because of an acute exacerbation, or worsening of another medical condition.

Policy

Fallon Health requires Prior Authorization for Pulmonary Rehabilitation. For Commercial Plan Members Fallon Health will cover up to two (2) one-hour sessions per day, for up to 36 lifetime sessions, of outpatient (either in a physician’s office or hospital outpatient
department), physician-supervised, comprehensive pulmonary rehabilitation for plan members who meet all of the following medical necessity criteria:
1. Has been diagnosed with COPD (Stages I, II, III, and IV)
2. Is medically stable
3. Is physically able to participate with no severe comorbid disease
4. Is motivated to participate

Although most pulmonary rehabilitation efforts are focused on patients with COPD, some programs treat patients with other conditions including patients with asthma, interstitial lung disease, bronchiectasis, cystic fibrosis, chest wall diseases, neuromuscular disorders, ventilator dependency, and before and after lung surgery for transplantation, volume reduction, or cancer. The application of pulmonary rehabilitation to these other conditions should be preceded by demonstrable clinically significant improvements in patient outcomes. At this time, there is insufficient peer-reviewed published literature to determine if pulmonary rehabilitation provides any statistically significant and clinically relevant improvements for patients with other conditions.

**Exclusions**
- Pulmonary maintenance (pulmonary maintenance is a program available to graduates of a pulmonary rehabilitation program which allows participants to continue with their rehabilitation program in a supervised, hospital-based setting).

**Codes**

<table>
<thead>
<tr>
<th>Code type</th>
<th>Code</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>HCPCS</td>
<td>G0424</td>
<td>Pulmonary rehabilitation, including exercise (includes monitoring), one hour, per session, up to two sessions per day</td>
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<tr>
<td></td>
<td>J43.0</td>
<td>Unilateral pulmonary emphysema [MacLeod's syndrome]</td>
</tr>
<tr>
<td></td>
<td>J43.1</td>
<td>Panlobular emphysema</td>
</tr>
<tr>
<td></td>
<td>J43.2</td>
<td>Centrilobular emphysema</td>
</tr>
<tr>
<td></td>
<td>J43.8</td>
<td>Other emphysema</td>
</tr>
<tr>
<td></td>
<td>J43.9</td>
<td>Emphysema, unspecified</td>
</tr>
<tr>
<td></td>
<td>J44.0</td>
<td>Chronic obstructive pulmonary disease with acute lower respiratory infection</td>
</tr>
<tr>
<td></td>
<td>J44.1</td>
<td>Chronic obstructive pulmonary disease with (acute) exacerbation</td>
</tr>
<tr>
<td></td>
<td>J44.9</td>
<td>Chronic obstructive pulmonary disease, unspecified</td>
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</tbody>
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**References**

Policy History

Origination date: 07/01/2012
Approval(s): Technology Assessment Committee: 02/26/2014 ICD 10 CM codes mapped; 04/23/2014 correction due to ICD 10 CM. Benefit Oversight Committee: 03/20/2012, 07/11/2012, 04/08/2015 (updated references), 04/13/2016 (removed ICD-9 codes, updated references), 04/12/2017 (updated references)

Not all services mentioned in this policy are covered for all products or employer groups. Coverage is based upon the terms of a member’s particular benefit plan which may contain its own specific provisions for coverage and exclusions regardless of medical necessity. Please consult the product’s Evidence of Coverage for exclusions or other benefit limitations applicable to this service or supply. If there is any discrepancy between this policy and a member’s benefit plan, the provisions of the benefit plan will govern. However, applicable state mandates take precedence with respect to fully-insured plans and self-funded non-ERISA (e.g., government, school boards, church) plans. Unless otherwise specifically excluded, federal mandates will apply to all plans. For Medicare and Medicaid members, this policy will apply unless Medicare and Medicaid policies extend coverage beyond this policy.