



Clinical Medical Policy Pulmonary Rehabilitation

Benefit Coverage:

Conditional benefit, approval is based on review of medical necessity documentation

Description:

Pulmonary Rehabilitation is an integrated educational and exercise program designed to improve the functional and symptom status of patients with severe COPD.

The educational component of Pulmonary Rehabilitation includes didactic sessions on topics such as: the pathophysiology of COPD, current medications and their proper use, identification of disease exacerbations, nutritional support, and energy conserving techniques for daily living. In addition, each patient is given an exercise prescription that is based on their medical history, cardiopulmonary status, orthopedic limitations, and results of a standardized 6 minute walk test (the total distance covered in 6 minutes). The walk test takes place at the initial assessment and monthly thereafter to determine progress.

In general, the intensity of the exercise is determined by a standardized perceived exertion dyspnea scale (ex. Borg Scale) as well as the patient's oxygen saturation. Oxygen saturation is assessed on all exercise modalities. Supplemental oxygen is considered if the oxygen saturation is found to consistently fall below established guidelines of < 89%. If the patient is already using supplemental oxygen, liter flow is adjusted to maintain saturations \geq 89%.

When the patient begins the program, exercise intensity is gradually increased by observing oxygen saturation, heart rate, blood pressure, EKG responses, and the perceived exertional dyspnea scale. The goal is to first increase the duration of exercise (5-8 minutes per week) and then the speed and resistance/workload in order to maintain an appropriate training level. After an initial warm up, exercise prescriptions usually consist of 15-60 minutes of aerobic exercise, supplemented with 10-15 minutes of light resistance training exercises, and followed by a cool down period. The exercise prescription is reviewed and updated daily. Initially, the frequency of exercise is two days per week. A home exercise prescription may be implemented to increase exercise frequency to 3 to 6 days per week.

Modalities used for cardiovascular exercise training include upper extremity exercise (ex. arm ergometer), lower extremity exercise (ex. recumbent bike), and combined upper and lower body exercises (ex. seated Nu-step & Schwinn air dyne). In addition some modalities may be weight bearing (ex. treadmill) and others may be non-weight bearing modalities (ex. upright bike). Each patient's exercise prescription should incorporate both upper and lower extremity exercises as well as weight bearing and non-weight bearing modalities.

Proper breathing and posture are emphasized to ensure maximum benefit.

Coverage Determination:

Neighborhood Health Plan of Rhode Island (NHPRI) covers Pulmonary Rehabilitation as a clinical option when determined medically necessary by the Medical Management Department. Prior authorization is required.



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Criteria:

Patients meeting the following criteria will be eligible:

1. diagnosis of : chronic bronchitis, emphysema, chronic obstructive pulmonary disease
2. are medically stable and receiving optimal medical management
3. are under the care of a physician, with a specific referral for the participation in the pulmonary rehabilitation program
4. have undergone PFT within the past 6 months, showing moderate to severe COPD with FEV <50% predicted or meets the medical criteria for home supplemental oxygen coverage
5. display significant respiratory symptoms while performing ADL's
6. are not limited by another serious or unstable medical condition
7. have a sufficient level of cognition to comprehend and retain educational and instructional materials
8. demonstrate a high level of motivation relative to success in rehabilitation
9. evidence member has been partaking in a smoking cessation program for 3 months.

Covered Procedures:

24 sessions (2 sessions per week for 12 weeks)

CMP Number: CMP – 033.00

CMP Cross Reference:

References:

1. Nici L, Donner C, Wouters E, Zuwallack R, Ambrosino N, Bourbeau J et al. American Thoracic Society/European Respiratory Society statement on pulmonary rehabilitation. *Am J Respir Crit Care Med* 2006; 173(12):1390-1413.
2. Pulmonary rehabilitation. *Thorax* 2001; 56(11):827-834.
3. Hill NS. Pulmonary rehabilitation. *Proc Am Thorac Soc* 2006; 3(1): 66-74.
4. Sin DD, McAlister FA, Man SF, Anthonisen NR. Contemporary management of chronic obstructive pulmonary disease: scientific review. *JAMA* 2003; 290(17):2301-2312.

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