Pulmonary Rehabilitation (pulmonary rehab; PR) is a program of exercise, education, and support designed to control and alleviate symptoms, optimize functional capacity, and enhance quality of life for people with chronic pulmonary disease.

The Essentials

- At PHS, Pulmonary Rehab is offered at the Healthplex in Albuquerque, NM.
- A physician referral and diagnosis of pulmonary disease are required.
- Each patient’s unique needs are assessed and a program of care is designed at an individual level. Generally, an individualized program involves 36 visits of exercise and education classes.
- Pulmonary Rehab has been shown to improve the overall quality of life for patients with chronic respiratory disease.

Program Success

The Pulmonary Rehab program has helped thousands of patients with chronic pulmonary disease. Patients in pulmonary rehab report lower hospitalizations and readmissions than those with chronic pulmonary disease not enrolled in the program.

What We Know About Pulmonary Rehabilitation

Pulmonary rehabilitation (PR) is a multidisciplinary program of care for patients with chronic respiratory impairment. PR is intended to reduce and control symptoms, and help patients to maintain an optimal level of independent functioning. It provides physician-directed, individualized plans of care designed to improve physical conditioning, provide education about disease process and limitations, and improve functional status through prescribed exercise.

PR helps to reduce health care costs through stabilizing or reversing systematic manifestations of the disease (American Thoracic Society). The most common diagnoses for PR are COPD and interstitial lung disease.

Medicare covers a comprehensive rehabilitation program for moderate to very severe COPD as well as most other chronic lung diseases. Medicare requires a physician order/referral, along with pulmonary function test (PFT) parameters to qualify for the program.

Per CMS, pulmonary rehabilitation programs must include the following:

- Physician-prescribed exercise
- Individualized education and training, including respiratory management and smoking cessation, if appropriate
- Psychosocial assessment
- Outcomes assessment

For more information, contact:
Cardiopulmonary Rehab Department
Phone: (505) 823-8420
Fax: (505) 823-8424
PHS | Pulmonary Rehabilitation

- Personalized treatment plan

How Pulmonary Rehabilitation Works at PHS

Patients are referred to PR by providers from all care settings. The program is set up to provide individualized treatment under a seamless team care construct. Generally, an individual program consists of 36 visits. Each visit incorporates unique activities depending on the patient’s needs and physical limitations.

The high-level goals and demonstrated outcomes of the PHS PR program include:

- Improved quality of life
- Reduced respiratory symptoms (e.g., dyspnea)
- Increased exercise tolerance and performance
- Enhanced ability to perform activities of daily living (ADLs)
- Increased knowledge of pulmonary disease and its management

The Care Team

All PR patients are evaluated by, and interact with a multidisciplinary team that consists of:

- Supervising Physician (on-site)
- Nurse
- Paramedic
- Physiologist (PhD)
- Respiratory Therapist (RT)
- Registered Dietician/Certified Diabetic Educator
- Exercise Specialists

The Process

Every patient that enters the pulmonary rehab program undergoes an evaluation before the start and after completion of the program.

Pre- and post-program individual fitness evaluation includes:

- Health history
- Body measurements
- Vital sign parameters
- Fitness testing

Education and Training are provided throughout the course of rehab and include:

- Breathing techniques
- Bronchial hygiene
- Proper use of metered dose inhalers
- Medications
- Exercise techniques
- Traveling with oxygen
- Energy conservation
- Coping skills
- Proper nutrition
- Oxygen therapy
Individualized Exercise Prescription (including instruction and supervision), are based on:
- Medical history
- Personal fitness goals

Psychosocial Support
- Offers patients the opportunity to develop supportive and nurturing relationships with colleagues and staff to ensure success

Post Rehab
- After patients graduate from the PR program, they have the option of continuing their exercise prescription in the Lung Gym Maintenance Program for a self-pay monthly rate.

Personalized Treatment/ Exercise Plan
At the start of the program, the patient fills out a health survey, and an Exercise Specialist interviews the patient. The Exercise Specialist builds an exercise program for the patient that can include walking, cycling, stepping (recumbent), and isolated upper body ergometer along with some form of resistance/weight training.

Weekly Visits
At each visit, patients are evaluated and vital signs taken:
- Blood pressure, heart rate, oxygen saturation
- Pre- and post-visit blood sugar if diabetic
- Daily weight for cardiomyopathy or HF patients

Some visits may include:
- Chair Class
  - Rehab sessions may start with “Chair Class,” which is seated exercise and stretching involving weights, bands, and other forms of resistance training.
- Walk Test
  - Patients perform 6-minute walk test (if able), per American Thoracic Society guidelines.
  - Patients are monitored continuously via Bluetooth oximeters

Progress and Evaluation
Patients are regularly supervised for appropriate exercise progression and meet with the supervising physicians at least every 30 days to evaluate and update the individualized treatment plan. The Exercise Specialist provides ongoing feedback to the patient and measures progress on a daily basis.

When patients complete up to 36 visits, their provider may “continue” them in the program, or “graduate” and place them into a maintenance program (depending on insurance guidelines). After completing the program, patients complete a detailed exit interview.
### Process and Responsibilities

Patients attend pulmonary rehabilitation up to three times per week. Each patient is assigned to and followed by a care team.

**CMS has specific rules around regarding the number of visits that are covered. COPD patients are limited to 72 classes per lifetime. Non-COPD patients have no lifetime limit for attending pulmonary rehabilitation sessions.**
Measures of Success

At PHS, the PR program measures its success using national benchmarking. The program also participates in PHS’ Performance Measures. Scorecards are managed internally, and reported to the Service Line.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Measure</th>
<th>Aligns with Aim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Experience</td>
<td>(Outpatient) Patient Satisfaction (Target = 95%)</td>
<td>Exceptional Experience</td>
</tr>
<tr>
<td>Increased endurance</td>
<td>• MET Level</td>
<td>Better Health</td>
</tr>
<tr>
<td>and exercise tolerance</td>
<td>• Walking Distance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Total Exercise Time</td>
<td></td>
</tr>
<tr>
<td>Prevent Readmission</td>
<td>Pulmonary Rehab program participation</td>
<td>Cost Leadership</td>
</tr>
</tbody>
</table>

Patient Education and Shared Decision Making

Patient education is a large component of pulmonary rehabilitation. Along with individual education during rehab visits, patients may also participate in classroom education classes. Classes include, but are not limited to

- Pulmonary Meds and Inhalers
- Oxygen Therapy
- Lungs and Lung Disease
- Doctor Q&A
- Activities of Daily Living
- Achieving a Healthy Weight
- Breath and Body Awareness
- Making Sense of Food Labels
- Traveling with Oxygen
- Relaxation
- Nutrition and Lung Disease

Key to educating patients is knowing when to seek care, when to call their doctor, and under which circumstances they should visit the Emergency or Urgent Care departments.

Future Work

PHS is working to expand pulmonary rehabilitation services beyond Central New Mexico, and into the Regional facilities.
Glossary

**Chronic Obstructive Pulmonary Disease (COPD)**
COPD is 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. The chronic airflow limitation that characterizes COPD is caused by a mixture of small airways disease (e.g., obstructive bronchiolitis) and parenchymal destruction (emphysema), the relative contributions of which vary from person to person. Chronic inflammation causes structural changes, small airways narrowing, and destruction of lung parenchyma. A loss of small airways may contribute to airflow imitation and mucociliary dysfunction, a characteristic feature of the disease. Subtypes of COPD are emphysema, chronic bronchitis, and chronic obstructive asthma.

**Pulmonary Rehabilitation (PR)**
Pulmonary Rehabilitation is a program of exercise, education, and support designed to control and alleviate symptoms, optimize functional capacity, and enhance quality of life for people with chronic pulmonary disease. At PHS, a patient may be referred by any provider for PR, offered at the Healthplex in Albuquerque, NM.

Additional References

**Clinical Care Model**
- COPD
- COPD Management

**Additional Resources**
- American Thoracic Society: Pulmonary Rehabilitation
- GOLD Guidelines
- National Heart, Lung, and Blood Institute
- Presbyterian Healthplex - Pulmonary Rehab