Pulmonary rehabilitation: indications and contraindications limitations of method

Conf. dr. Postolache Paraschiva
Universitatea de Medicină și Farmacie "Gr. T. Popa" Iași
ATS/ERS
Statement on Pulmonary Rehabilitation


Joint Statement of the American Thoracic Society (ATS) and the European Respiratory Society (ERS) was adopted by the ATS Board of Directors, December 2005, and by the ERS Executive Committee, November 2005.

This is complementary to two current documents on pulmonary rehabilitation (PR):

1. the American College of Chest Physicians and American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) evidence-based guidelines, which formally grade the level of scientific evidence (Pulmonary rehabilitation: joint ACCP/AACVPR evidence-based guidelines. ACCP/AACVPR Pulmonary Rehabilitation Guidelines Panel. Chest 1997; 112: 1363–1396) și


Assoc. Prof. Dr. Paraschiva POSTOLACHE

GOLD ERS MEMBERSHIP since 1990
Pulmonary Rehabilitation
Summary

Pulmonary rehabilitation is a multidisciplinary programme of care that is individually tailored and designed to optimise physical and social performance and autonomy.

Pulmonary rehabilitation should be considered for patients with COPD who have dyspnoea or other respiratory symptoms, reduced exercise tolerance, a restriction in activities because of their disease, or impaired health status.

Pulmonary rehabilitation programmes include:

- exercise training,
- education,
- psychosocial/behavioural intervention,
- nutritional therapy,
- outcome assessment,
- promotion of long-term adherence to the rehabilitation recommendations.
Pulmonary rehabilitation is administered in inpatient, outpatient, or home settings, or some combination of these.

- In Romania, inpatient and rarely home settings are common use.
- In Europe, ambulatory patients may be admitted to an inpatient program to undergo intensive therapy and to avoid the inconvenience of daily travel.
- In the United States, inpatient rehabilitation is usually reserved for patients who are too disabled to travel to and from an outpatient program and the focus of these programs is more often on optimizing medical or ventilator regimens than on the exercise components.
Candidates for pulmonary rehabilitation are patients with:

- Symptomatic impairment attributable to pulmonary disability,
- Failure of standard medical regimen to achieve adequate symptomatic relief and
- Motivated, adherent patients.
The indications for PR include the presence of respiratory impairment potentially responsive to the techniques available manifested as:

- dyspnoea experienced during rest or exertion;
- hypoxemia, hypercapnia;
- reduced exercise tolerance or a decline in the patient’s ability to perform activities of daily living;
- an unexpected deterioration or worsening symptoms against a background of long-standing dyspnoea and a reduced but stable exercise tolerance level;
Pulmonary Rehabilitation
Indications

- 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.
Indications for inpatient as opposed to outpatient pulmonary rehabilitation:
- Severe impairment;
- Multiple comorbidities;
- Chronic invasive mechanical ventilation;
- Slow convalescence from an acute respiratory illness;
- Preparing a debilitated or chronically ventilated patient for discharge home;
- Transportation problems, too distant from program.
Pulmonary Rehabilitation
Contraindications

The initial assessment of the patient should establish his or her willingness to participate in the rehabilitation process.

So, - lack of motivation and
- non-adherence exclude patient from PR program.

The presence of certain conditions would make successful completion of the rehabilitation process unlikely:
- Severe cognitive dysfunction or psychiatric illness that interferes with memory and compliance;
Pulmonary Rehabilitation
Contraindications

- Unstable comorbidity (ischemic cardiac disease, unstable angina, uncompensated congestive heart failure);
- Severe exercise-induced hypoxemia, not correctable with O2 supplementation;
- Inability to exercise due to severe lung or other disease (arthritis, stroke);
- Severe pulmonary hypertension, significant hepatic dysfunction, metastatic cancer, renal failure, acute cor pulmonale and COPD acute exacerbations;
Pulmonary Rehabilitation

Contraindications

- Substance abuse without the desire to cease use would seriously interfere with successful PR; commonly cigarette smoking (however smokers and nonsmokers have similar responses to rehabilitation).

- Physical limitations such as poor eyesight, impaired hearing, a speech impediment, or orthopedic impairment may require modification of the PR setting but should not interfere with participation in a PR program.

The decision to provide or withhold PR should be based on a thorough, individualized patient assessment.
Limitations of method

Patient related:

- 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;
Pulmonary Rehabilitation
Limitations of method

- There might be concerns or limitations in patient transportation;
- Financial resources might not be available.

Related to the health care system:
- The patient may have to stop the program because of an acute exacerbation, or worsening of another medical condition;
- Reimbursement by intermediaries or third-party payers is not standardized or insufficient.
Evidence from some trials suggests that respiratory rehabilitation is effective in COPD patients after acute exacerbation.

Early inpatient-outpatient rehabilitation for COPD patients admitted with an exacerbation was feasible and safe, and was associated with a non-significant trend towards reduced acute health-care utilization.

Larger trials, however, are needed to further investigate the role of respiratory rehabilitation after acute exacerbation and its potential to reduce costs caused by COPD.
Pulmonary Rehabilitation

Conclusions

RP should be made available to all patients who need it. This requires education of healthcare professionals at all levels of education, with the objective to be incorporated into medical practice chain processes.

In addition, concerted efforts are needed to encourage health care system providers to offer this therapy and make it affordable.

Recent studies have shown that long-term benefits (including reduced health care resources) are achievable with low cost interventions, which promote this effort.
It is necessary to develop ways to maintain benefits after RP, particularly by improving long-term self-management and adherence to exercise program at home.

Even if it has access to RP are found a considerable number of subjects choose not to participate and know little about why this election. More information is needed about the rationale and predictors non-adherence and non-participation in programs to develop PR strategies to influence behavior effectively these subjects.