

Clinical Competency Guidelines for Pulmonary Rehabilitation Professionals

AMERICAN ASSOCIATION OF CARDIOVASCULAR AND PULMONARY REHABILITATION POSITION STATEMENT

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- The article provides an outline of clinical competencies recommended for personnel providing comprehensive services in pulmonary rehabilitation (PR), complementing the American Association of Cardiovascular and Pulmonary Rehabilitation *Guidelines for Pulmonary Rehabilitation Programs*. Individuals wishing to provide PR services should possess a common core of professional and clinical competencies regardless of their academic discipline.

K E Y W O R D S

competency

pulmonary rehabilitation

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DEFINITION AND PURPOSE

This article is an update of the 1995 *Clinical Competency Guidelines for Pulmonary Rehabilitation Professionals*.¹ Its purpose is to present an outline of the clinical competencies recommended for personnel providing comprehensive services in pulmonary rehabilitation (PR). It is meant to be complementary to the

American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) *Guidelines for Pulmonary Rehabilitation Programs*,² which is a nationally derived consensus statement of guidelines applying to PR programs. It is assumed that individuals wishing to provide PR services should possess a common core of professional and clinical competencies regardless of their academic discipline. Services characteristic of a comprehensive PR program include a multidisciplinary

assessment, leading to the development of an integrated treatment plan, patient education, exercise training, psychosocial support, and follow-up. Practitioners may also serve as case managers to provide coordination of services. Individuals who commonly provide such comprehensive services include respiratory care practitioners, nurses, physical therapists, occupational therapists, and clinical exercise physiologists.

The medical director is responsible for ensuring that the PR program is safe, effective, and medically appropriate for individual patients. This individual is responsible for ensuring that an initial medical evaluation of the patient is completed and that appropriate clinical goals have been developed. In addition, the medical director is responsible for ensuring that relevant clinical information is communicated to the referring physician so that long-term preventive care can be coordinated.

The program coordinator should be trained in a health-related profession and should have clinical experience and expertise in the care of patients with pulmonary diseases. This individual should understand the philosophy and goals of PR and be knowledgeable in program administration, marketing, patient education, exercise and training, and reimbursement.

In addition to the general guidelines outlined in this article, PR professionals should be aware of state practice act restrictions and principles of legal risk management as they apply to assessment, intervention, and follow-up. They should also demonstrate understanding of Health Insurance Portability and Accountability Act regulations and infection control procedures, including implications of Occupational Safety and Health Administration blood-borne pathogen standards and the application of standard precautions to clinical procedures. Because of the growing scientific evidence for the effectiveness of PR for patients with chronic obstructive pulmonary disease, applications of rehabilitation principles to patients with other chronic lung diseases are increasingly being developed and refined. These include, but are not limited to, individuals with asthma, cystic fibrosis, lung transplantation, interstitial/restrictive lung diseases, and ventilator dependency. This article does not specifically address these other patient populations, but does recognize the potential value of rehabilitation for all patients with chronic respiratory diseases and the need for further research and development. PR professionals are encouraged to utilize 2 recent national and international statements on PR that provide the most up-to-date scientific rationale and clinical expertise for PR interventions.^{3,4}

By itself, this article conveys no approval, endorsement, or certification of either PR professionals or their programs. While competencies are minimal standards, this article promotes best practice expecta-

tions and may also serve as a self-evaluation tool for practitioners to identify continuing education needs.

During the course of its development, this article underwent reviews by the AACVPR Board of Directors and the Document Oversight Committee. The article is organized into 3 major clinical process categories (assessment, intervention, and outcome evaluation/follow-up).

COMPETENCY GUIDELINES

Assessment

A. Pathophysiology and comorbidity.

Personnel will

1. demonstrate a thorough knowledge of pulmonary anatomy, physiology, and pathophysiology including common comorbidities that limit or otherwise influence physical activity, symptom management, and quality of life;
2. demonstrate an understanding of pulmonary diagnostic techniques, medical and pharmacologic management, and the normal/abnormal responses to exercise;
3. recognize comorbid conditions that may influence the prescription of physical activity and specific appropriate educational sessions (eg, nutritional instruction, smoking cessation, stress management). The comorbid conditions may include
 - metabolic disorders (eg, diabetes, obesity),
 - musculoskeletal conditions (eg, hip or knee dysfunction, osteoporosis, arthritis),
 - cardiovascular conditions (eg, congestive heart failure, coronary artery disease, peripheral vascular disease),
 - neuromuscular conditions,
 - psychiatric and mood disorders (eg, depression, anxiety), and
 - other conditions (eg, gastroesophageal reflux with chronic aspiration, hiatal hernia, sinusitis/rhinitis, alcoholism, sleep disturbances, body composition abnormalities);
4. recognize the effects of environmental factors, medication usage, and supplemental oxygen use on the pathophysiology, treatment, and natural history of the disease process; and
5. identify any medical barriers to achieving optimal rehabilitation benefit.

B. Professional communication.

Personnel will

1. obtain medical records and verify medical/health history to include diagnosis, therapeutic interventions, and comorbidities;

2. inform patients of their rights and responsibilities within the parameters of professional ethics and legal authority, including preservation of confidentiality and appropriately limiting access to patient information;
3. consult with referring physician and other healthcare team members to determine the need for additional assessments;
4. communicate with all disciplines, including the referring physician, to maximize and maintain the benefits of the rehabilitation intervention; and
5. develop, with active patient participation, a comprehensive plan of rehabilitation, including the establishment of reasonable and measurable goals.

C. Patient education and training.

Personnel will

1. gather information regarding educational and literacy level, the presence of visual or hearing impairments, and language or cultural barriers to assess patient learning ability;
2. assess patient and family knowledge of the disease and treatment;
3. assess the current treatment regimen and level of adherence;
4. assess for current and previous use of tobacco products, attempts to quit, and current level of physiological, psychological, and chemical (nicotine) dependency;
5. assess other needs such as air travel, bronchial hygiene, and intimacy concerns; and
6. identify specific patient needs and incorporate into an individualized plan of care.

D. Exercise.

Personnel will

1. assess exercise tolerance, the patient perception of exercise tolerance, and ability to perform activities of daily living;
2. determine the appropriate exercise testing required on the basis of the individual patient needs and abilities;
3. demonstrate an understanding of the cardiopulmonary response to exercise and utilize information obtained from invasive or noninvasive exercise testing that may include appropriate *testing modes* (eg, tests of pulmonary function and gas exchange, treadmill, bicycle ergometer, walk test);
4. demonstrate an understanding of the physiologic response to exercise, as well as the various tests/measurements used to develop the exercise prescription (ie, ventilatory performance, dyspnea indexes, gas exchange abnormalities,

pulmonary reserve, metabolic equivalents, rating of perceived exertion, anaerobic threshold);

5. demonstrate an understanding of *exercise protocols* (eg, incremental exercise, steady-state exercise) to accommodate patients with specific needs, disabilities, or disorders, as well as to assess patient needs and ensure patient safety; and
6. determine the appropriate exercise prescription on the basis of individual patient goals and abilities with the medical director. Reassess the exercise prescription mid-course to demonstrate progress and improvement.

E. Psychosocial.

Personnel will

1. utilize active listening and behavioral observation skills in assessing and evaluating impairments in interpersonal functioning, level of family and social support, psychosocial adaptation to illness, and screening for the presence of maladaptive behaviors and psychopathology;
2. demonstrate an understanding of the psychosocial issues affecting adherence to various intervention strategies and the development of an integrated treatment plan; and
3. assess individual patient needs for additional psychosocial services in addition to the PR intervention.

Intervention

A. Professional communication.

Personnel will provide for

1. documentation of delivery of care including patient response to treatment, adherence to prescribed treatment, lifestyle recommendations, and any clinical findings that require medical follow-up;
2. regular interaction among staff and medical director regarding patient progress with the individualized plan of care; and
3. regular communication with referring physician for progress or any changes that require additional intervention.

B. Patient education and training.

Personnel will

1. use basic educational principles, theories of learning, and methods of counseling, as well as knowledge of specific behavioral modification techniques, to promote healthy lifestyle changes;
2. develop a self-management education program, using a multidisciplinary approach, to promote healthy behavior change (ie, exercise adherence,

smoking cessation, proper use of medications, an action plan for exacerbations, oxygen use);

3. coach patients using a variety of methods, strategies, materials, and technologies helpful in promoting behavior change; and
4. adjust teaching to accommodate individual patient needs and limitations.

C. Exercise.

Personnel will

1. implement the individual exercise prescription and monitor patient response and progress;
2. titrate oxygen therapy to treat exertional hypoxemia when needed;
3. continually assess exercise performance with special considerations for preexisting comorbid conditions;
4. adapt exercise modality, intensity, and duration to meet individual patient needs;
5. train patients in the principles of safe exercise and provide a home exercise program;
6. monitor and reinforce patient adherence to home exercise program, oxygen therapy, and medication use; and
7. maintain patient safety through development and implementation of response policy for untoward events including patient assessment and medical director consultation.

D. Psychosocial.

Personnel will

1. provide supportive counsel to all participants, with special emphasis on mild to moderate psychological distress (ie, depression, anxiety/panic, anger);
2. understand and utilize self-help techniques, materials, and resources offering additional referral when needed to mental healthcare professionals, support groups, community, and home care services;
3. involve family members or significant others as appropriate in counseling to enhance social support; and
4. address long-term planning issues including advance directives and, as appropriate, end-of-life/hospice information.

E. Emergency procedures.

Personnel will

1. maintain an emergency response capability for PR exercise programs including appropriate equipment in the exercise area, recognition and understanding of staff roles, and the specific steps needed for various emergency situations.

Outcome Evaluation and Follow-up

- A. Participate in collection of outcome data in the domains of health, behavior, clinical, and patient satisfaction from baseline to postintervention.
- B. Review these data with the medical director and PR team to evaluate program effectiveness.
- C. Make improvements and modify delivery of the program (ie, patient education, supervised exercise, psychosocial intervention) on the basis of data analysis.
- D. Consider reporting data and department policies for peer review oversight through the AACVPR Program Certification application process.
- E. Communicate a summary report to referring healthcare providers such that long-term preventive care can be coordinated.

—Acknowledgments—

The Writing Group thanks the AACVPR Board of Directors and Document Oversight Committee and other rehabilitation professionals for their guidance and feedback regarding earlier drafts of this article.

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