

AACVPR

American Association of Cardiovascular
and Pulmonary Rehabilitation

Promoting Health & Preventing Disease

AACVPR Position Statement: Core Competencies for Cardiac Rehabilitation/Secondary Prevention Professionals: 2010 Update



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**POSITION STATEMENT OF THE AMERICAN ASSOCIATION
OF CARDIOVASCULAR AND PULMONARY REHABILITATION**

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Recognition of the Writing Team

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2010 Update: Purpose

- Update the previous 1994 statement
- Relate updated competencies to the revised core components publication
- Reflect current expectations of providing CR/SP services
- Include general core competency expectations for all health care professionals

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Previous AACVPR Statement

Core Competencies for Cardiac Rehabilitation Professionals

Position Statement of the American Association of Cardiovascular and Pulmonary Rehabilitation

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**J Cardiopulm Rehabil
1994;14:87-92**

AHA/AACVPR SCIENTIFIC STATEMENT

Core Components of Cardiac Rehabilitation/Secondary Prevention Programs: 2007 Update

present current information on the evaluation, interventions, and expected outcomes in each of the core components of cardiac rehabilitation/secondary prevention programs in agreement with the 2006 update of the AHA/American College of Cardiology (ACC) secondary prevention guidelines,⁹ including baseline patient assessment, nutritional counseling, risk factor management (lipids, blood pressure, weight, diabetes mellitus, and smoking), psychosocial interventions, and physical activity counseling and exercise training (Tables 1 and 2).^{2,7,9–25} The most notable updates

Definitions

- Professional competence
 - Integration of core knowledge & skills into clinical practice; involves interpersonal skills, lifelong learning, and professionalism
- Competencies
 - Reflect legal, ethical, regulatory & political influences on professional practice within a discipline

Core Competencies

- Set of measurable indicators necessary for minimal performance expectations within a health discipline
- Framework that aligns health care providers, educators, students, consumers, and payors with expectations for providing care consistent with evidence-based standards, performance measures & quality outcomes

Core Competencies for Health Care Professionals

- Provide patient-centered care
- Work in interdisciplinary teams
- Employ evidence-based practice
- Apply quality improvement
- Utilize informatics

Greiner A, Knebel E. IOM, 2003

Core Competencies for CR/SP Professionals - Goals

- Defines important knowledge & skills
- Defines appropriate evaluation of knowledge & skills
 - Assessment based on professional training, education, certification, and/or licensure
- Part of AACVPR program certification
- A guide for academic programs preparing students to enter into CR/SP

10 Core Competency Areas

- Patient assessment
- Nutritional counseling
- Weight management
- BP management
- Lipid management
- Diabetes management
- Tobacco cessation
- Psychosocial management
- P. A. counseling
- Exercise training evaluation

Competency

Nutritional counseling

Knowledge

Demonstrate an understanding of:

- Role and impact of diet on CVD progression and risk factor management
- Analysis of diet composition with specific emphasis on total caloric intake and dietary content that influence risk factors (total fats, cholesterol, refined and processed carbohydrates, sodium, etc)¹⁶
- Potential risks and/or benefits of nonprescription nutritional supplements and alcohol intake
- Target goals for dietary modification and nutrition interventions for identified risk factors¹⁶ and/or comorbidities (eg, dyslipidemia, hypertension, diabetes, obesity, heart failure, kidney disease)
- Effective behavior change strategies based on common theoretical models and adult learning strategies¹⁷

Skills

Ability to perform the following:

- Dietary intake assessment to estimate total calories; amounts of saturated fat, trans fat, cholesterol, sodium, fruits and vegetables, whole grains, fiber, and fish; number of meals/snacks; portion sizes; frequency of eating out; alcohol consumption
- Education and counseling on specific dietary modification needed to achieve target goals
- Behavioral interventions to promote adherence and self-management skills in dietary habits
- Measure and report outcomes of nutritional management goals at the conclusion of the program^{7,18}

Competency	Knowledge	Skills
Blood pressure management	<p>Demonstrate an understanding of:</p> <ul style="list-style-type: none">• Hypertension as a risk factor for atherosclerotic vascular disease and potential end-organ damage• Signs/symptoms of hypotension and hypertension• Normal range of BP at rest and during exercise• Current BP targets for secondary prevention^{21,23}• Role of home BP monitoring in BP management²⁴• Actions of classes of antihypertensive medications and common side effects• Postural and post-exercise hypotension• Elements of the DASH Diet for treating hypertension²⁵• Principles of measurement and operation for different devices used to measure BP• Recognition that BP control is often complex and difficult and may require ongoing medication adjustments, dietary management, physical activity, and behavioral management• Importance and efficacy of sodium restriction, weight management, physical activity and exercise, smoking cessation, alcohol moderation, and drug therapy in the control of BP	<p>Ability to perform the following:</p> <ul style="list-style-type: none">• Accurate BP determinations at rest (seated, supine, and standing) and during exercise²⁶• Recognition of significant BP deviations from the expected range or targeted outcome• Assess compliance with BP medications and management plan• Measure and report outcomes for BP management at the conclusion of the rehabilitation program^{7,18}

Competency	Knowledge	Skills
Diabetes management	<p>Demonstrate an understanding of:</p> <ul style="list-style-type: none">• Type I and type II diabetes• Fasting and casual blood glucose values that define hypoglycemia and hyperglycemia^{28,29}• Importance of and recommended target value for HbA_{1c}^{21,28}• Complications related to diabetes: micro and macrovascular; autonomic and peripheral neuropathy; nephropathy; and retinopathy• Signs and symptoms related to hypoglycemia and hyperglycemia• Use of carbohydrates for hypoglycemia• Actions of glucose-lowering medications and insulin• Importance of monitoring blood glucose values, especially before and after the exercise• Contraindications to exercise based on blood glucose values³⁰• Importance of compliance with diabetic medications and dietary, body weight, and exercise recommendations• Importance of recognizing and managing the metabolic syndrome and the associated CVD risk factors• Importance and efficacy of weight management, physical activity and exercise, alcohol moderation, and drug therapy in the control of blood glucose	<p>Ability to perform the following:</p> <ul style="list-style-type: none">• History of complications related to diabetes including frequency and triggers of hyperglycemia and hypoglycemia• Calibration and proper use of glucometers• Assess signs and symptoms of hyperglycemia and hypoglycemia and take appropriate actions• Provide patient education concerning the effects of lifestyle and medications on glycemic control• Referral of the patient to a diabetic educator or clinical dietitian, as needed• Measure and report outcomes for glucose control at the conclusion of rehabilitation, including episodes of hyperglycemia and hypoglycemia during/after exercise^{7,18}

Competency	Knowledge	Skills
Physical activity counseling	<p>Demonstrate an understanding of:</p> <ul style="list-style-type: none">• Lack of regular physical activity and sedentary behavior as a risk factor for CAD^{3,2}• Negative health consequences of time spent being sedentary• Current recommendations for intensity, frequency, and duration for regular physical activity in persons with CVD^{21,33}• Preexisting musculoskeletal and neuromuscular conditions that may affect physical activity• Identifying physical activities that may increase the risk for an untoward cardiovascular event and environmental conditions that may also increase the risk• Barriers to increasing physical activity• Metabolic requirements for recreational, occupational, and sexual activities³⁴• Recommendations to avoid musculoskeletal injury related to physical activity• Effective behavior change strategies based on common theoretical models and adult learning strategies¹⁷	<p>Ability to perform the following:</p> <ul style="list-style-type: none">• Assess current physical activity level using both questionnaires and available activity-monitoring devices• Assist patients in setting realistic incremental goals for future physical activity• Recommendations for increasing the level of safe and appropriate daily physical activity and structured exercise• Assess physical and metabolic requirements for activities of daily living, occupational, and recreational activities• Communication/behavioral strategies that will improve compliance with regular physical activity recommendations• Measure and report outcomes for physical activity at the conclusion of rehabilitation^{7,18}

Individual vs. Team Knowledge & Skills

- All core competencies are **NOT** intended for each CR/SP professional
- Each member of the multidisciplinary team contributes competencies based on education, training, certification or licensure

One Size Does Not Fit All

- This list of core competencies may be challenging to some programs
- Be selective – prioritize
- Set goals for new competencies

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Assessing Core Competencies

The statement is silent



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Competency Validation: Exercise Prescription & Progression of Physical Activity

Name:				Department/Unit: CardioPulm Rehabil						
Reference Guidelines or Standard: <i>Care of, CardioPulmonary Rehabilitation.</i>				Author:						
Competency Statement: <i>Demonstrates appropriate care of patient during assessing exercise needs, prescribing exercise, and monitoring exercise progression.</i>				Date Written		Date Reviewed				
				Date Revised		Date Issued				
Check the Applicable Age Specific Group:										
<input type="checkbox"/> Pediatric: <input type="checkbox"/> Neonate <input type="checkbox"/> Infant <input type="checkbox"/> Child <input type="checkbox"/> Adolescent <input type="checkbox"/> Adult <input type="checkbox"/> Geriatric <input type="checkbox"/> N/A										
Evaluation <input type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Periodic _____ months		Score *(Action Plan)		Validation/Learning Options		Action Plan Options *Learner will actively participate in formation of action plan		Date Due		
Have you ever done this procedure?	1	performs w/ ease & w/o supervision	<input type="checkbox"/> Articles <input type="checkbox"/> Books	<input type="checkbox"/> Medical Record Review	1. Review /Repeat Skill					
	2*	performs but needs coaching &/or confidence	<input type="checkbox"/> Class <input type="checkbox"/> C.N.S. /Educator	<input type="checkbox"/> Self-Learning Module	2. Standard Review					
	3*	Cannot &/or did not perform	<input type="checkbox"/> Demonstration <input type="checkbox"/> Equipment	<input type="checkbox"/> SCR Website <input type="checkbox"/> Slide-Tape	3. Self-study Packet					
YES	NO	N/A	not applicable	<input type="checkbox"/> Mannequin <input type="checkbox"/> Manufacturers Instructions	<input type="checkbox"/> Videotape <input type="checkbox"/> Other	4. Review of Literature				
						5. Lecture/class				
						6. Vignettes (electronic or video)				
						7. Refer to Attached Action Plan				
						8. Other _____				
Applies to clinical staff				SIMULATION OR OTHER		OBSERVATION OR N/A		ACTION PLAN* SCORE OF 2 OR 3:		
The Learner will be able to:				Date	Score/initials	Date	Score/initials	List #'s of plan	Re evaluated	
				Date	Score/initials	Date	Score/initials	Date	Score/initials	
1. Interpret exercise test (maximal or submaximal) and provide aerobic guidelines based on results: <input type="checkbox"/> GXT (maximal): Determine THR by Karvonen's Formula. <input type="checkbox"/> 6-min walk test (submaximal): Identify current submaximal MET level										
2. Recommend appropriate training exercise parameteres (MET level, heart rate, and perceived exertion).										
3. Recognize abnormal response to exercise and intervene appropriately.										
Demonstrate, provide instruction, supervise, and adapt exercise appropriately on a variety of modalities: 1. Stretching & flexibility routine 2. Hand-held weights and stretch bands 3. Arm ergometer 4. Treadmill 5. Bikes (airdyne, windsprint, recumbant) 6. Rower 7. Paramount system										
Demonstrate & teach self-monitoring exercise skills, encourage self-responsibility, and help establish a home exercise plan prior to discharge.										

SIGNATURE: _____ INITIALS _____ SIGNATURE: _____ INITIALS _____

SIGNATURE: _____ INITIALS _____ SIGNATURE: _____ INITIALS _____

Academic Training

- Provides a guide concerning important knowledge and skills for academic training
- Helps coordinate training and competencies in the field

AACVPR Program Certification

AACVPR [Logout](#)

DASHBOARD

Your Application

- Page 1: Program Profile
- Page 2: Individual Treatment...
- Page 3: Staff Competency Ski...**
- Page 4: Emergency Equipment ...
- Page 5: Written Policies/Pro...
- Page 6: Physician Referral
- Page 7: Informed Consent
- Page 8: Exercise Prescription
- Page 9: Medical Emergencies
- Page 10: Medical Emergency In...
- Page 11: Untoward Events
- Page 12: Clinical Outcomes As...
- Page 13: Behavioral Outcomes ...
- Page 14: Health and Service Q...
- Page 15: Risk Stratification ...
- Page 16: Physician Feedback
- Page 17: Be Prepared to Submit

Staff Competency Skills ▶ Page 3

You indicated your program assesses staff competency skills, specific to cardiovascular rehabilitation, on a yearly basis. (AACVPR defines staff competency skills as technical, interpersonal, and critical thinking skills required to fulfill organizational, departmental and work setting requirements under the varied circumstances of the real world.)

General emergency and safety drills and in-services in the hospital facility such as fire drills, infection control, safety inspections, health and safety reviews should not be included.

Please provide a narrative explanation of the process to include discussion of when, what and how staff competencies are assessed.