AHS Cardiac Rehabilitation Guide

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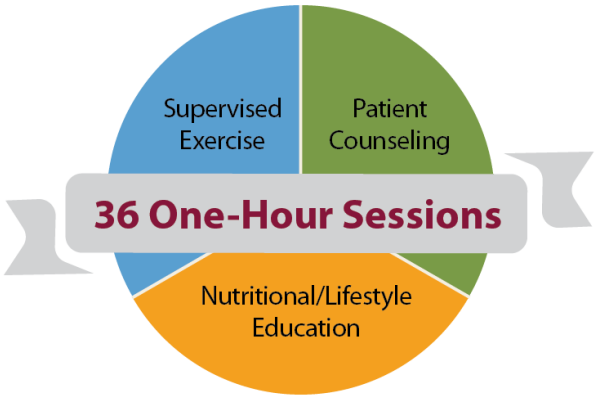
AHS CARDIAC REHABILITATION GUIDE OUTLINE

The Million Hearts® Cardiac Rehabilitation Change Package (CRCP) is a great tool to guide your quality improvement initiatives. It is centered on raising awareness, bolstering referrals, and promoting the utilization of cardiac rehabilitation within your practice setting, across your networks, and through community partnerships. Although Cardiac rehabilitation (CR) reduces hospital readmissions and saves thousands of dollars in health care expenditures, it is a grossly underutilized secondary prevention program. Use the strategies in this compendium to help connect the 90% of eligible patients who are not accessing vital cardiac rehabilitation services due to a lack of timely referrals.

I. What is Cardiac Rehabilitation?



Cardiac rehabilitation (CR) is a structured program of supervised exercise, patient counseling, and lifestyle and nutrition education designed to help patients recover from cardiac events and manage heart failure.

Cardiac Rehabilitation Referral Eligibility	
Cardiac-related conditions or events	Cardiac procedures
•Heart attack in the past 12 months •Stable chronic heart failure •Current stable angina	•Coronary angioplasty or stent •Bypass surgery •Heart valve replacement or repair •Heart or heart-lung transplant

The Importance of Cardiac Rehab from the Agency for Healthcare Research and Quality (AHRQ) TakeHeart® Initiative		
Core Cardiac Rehab Components	**Patient Benefits**	**Cardiac Rehab Hospital Benefits**
✓ Supervised exercise training ✓ Education and skills development ✓ Psychosocial counseling	✓ Reduced risk of death ✓ Fewer symptoms, such as angina and fatigue ✓ Decreased heart attack recurrence ✓ Better medication adherence ✓ Improved exercise performance ✓ Increased quality of life and ability to perform daily living activities ✓ Better patient understanding of heart disease and its management ✓ Improved patient mood	✓ Improved quality of care and outcomes ✓ Reduced readmissions ✓ Improved quality metrics ✓ Increased readiness for value-based payment initiatives

II. Effective Cardiac Rehab Referral and Care Coordination Practices

CR Phases and Workflow

Role	Activity	Elements
Clinician (hospitalist, cardiologist, surgeon)	Start: Patient presents with eligible procedure or diagnosis EHR triggers order prompt for CR	Verify eligibility for CR Medicare Part B covers CR and ICR for patients who experience one or more of the following: • Acute myocardial infarction within the preceding 12 months • Coronary artery bypass surgery • Current stable angina pectoris • Heart valve repair or replacement • Percutaneous transluminal coronary angioplasty or coronary stenting • Heart or heart-lung transplant • Stable, chronic heart failure defined as patients with left ventricular ejection fraction of 35% or less and New York Heart Association (NYHA) class II to IV symptoms despite being on optimal heart failure medical therapy for at least six weeks
Acute care physical therapist	Phase 1 begins in the hospital	Depending on the severity of the acute condition or procedure, activities and exercises are initiated to help the patient regain strength and mobility
Clinician	Conversation with the referred patient about CR	Briefly explains what outpatient CR is, that a referral was submitted, and the care coordinator will be stopping by to discuss CR in detail, answer any questions and assist with next steps
Phase 1 Care Coordinator	Order lands on care coordinator's queue	Coordinator visits the patient, discusses CR, and explores the patient's concerns and questions, such as transportation, work schedule or other potential barriers. *Motivational interviewing (OARS) may be an effective approach during this discussion.*
Phase 1 Care Coordinator	Patient agrees to enroll in CR	Decides the best match for the patient for outpatient CR and makes referral
Phase 1 Care Coordinator	Patient does not agree to enroll	Document reason(s) why; recommend follow-up with the primary care provider

Phase 1 Care Coordinator	Patient agrees to enroll - Schedules first visit with outpatient CR before hospital discharge at the patient's preferred location	• Complete CR intake visit orientation • Initial Phase 2 visit scheduled
CR Care Coordinator AND Discharge team: pharmacist, care manager, social worker, etc.	Discharge checklist is complete Teach-back with the patient and family	Patient is discharged with: • Complete CR appointment information within seven days of hospital discharge (when, where, how to get there) • Prescriptions, medication review • Community referrals (i.e., transportation, insurance, meals, and other social or financial needs addressed) • Primary care (or cardiologist) follow-up appointment information • Signs and symptoms to watch for and what to do or who to call for concerns
CR Care Coordinator	Patient discharged to short-term rehab or home health agency	• Patients discharged to other care settings often lose the connection to outpatient CR • Call the facility or agency, establish a partnership and let them know that the patient is eligible for and was referred to Phase 2 CR
CR Care Coordinator (ideally, the same care coordinator who met with patient in the hospital)	Follow-up call	Call the patient a few days after discharge to: • Confirm first outpatient CR appointment • Ask if any questions about medications, etc. • Reiterate benefits of CR, address any new/remaining questions or concerns • Ask how it's going with referrals to community resources/services • Confirm that patient has an appointment with the primary care provider and/or cardiologist
Phase 2 Care Coordinator	First Phase 2 visit	• Group orientation • Individualized treatment plan established • Subsequent visits (usually 36 visits) scheduled *The definition of successful enrollment in CR means that the patient has participated in at least one outpatient (Phase 2) session
Phase 2 Care Coordinator Exercise physiologist Other CR clinical staff	Phase 2	• Treatment plan updated monthly

Elements of Successful Care Coordination

- Patient education and engagement – **they can't change what they don't know** – explain the disease, review medications, expectations about lifestyle changes and healing process
- Assistance with Care Transitions

- Collaboration – PCP, cardiologist, Phase 2 team, patient, family, and friends
- Relationship management, positive reinforcement
- Assessing patient's needs and concerns
- Linking patients to other resources when needed – insurance navigation, affordable transportation options, social support, medical nutrition, broadband access for remote or hybrid CR
- Utilize the hospital financial assistance department, social workers, and interpreters to help address any social needs and cultural or linguistic needs.
- Care coordinators will need to have a tailored approach to each patient. A patient's age, gender, race, ethnicity, and cultural experience all influence their individual experience.
- Provide contact information for patients, so they have someone to call or email with any other questions or concerns.

Other Tips for Success:

- Consider rotating Phase 1 and Phase 2 care coordinators between settings, so the whole team is knowledgeable about the complete process while giving the patients the opportunity to meet and relate to staff they will see at the outpatient CR center. Building a connection with the patient and family will help them see the value of CR and encourage participation.
- It's effective to keep the wait time from discharge to Phase 2 at seven days or less: *The American College of Cardiology's 'See You in 7 Challenge' advocates that all patients discharged with a diagnosis of AMI have a cardiac rehabilitation referral made and an outpatient cardiac rehabilitation appointment scheduled to occur within seven days of hospital discharge.*
  See You in 7: improving acute myocardial infarction follow-up care (bmj.com)
- Connect the patient with a former CR graduate, so they have a peer to talk to and learn from their experience (i.e., Patient Ambassador program)

Evidence-Informed Resource:

The **AHRQ TakeHeart Initiative** has 10 online training modules that are highly recommended for you and your team.

- **Systems Change: Understanding Your Workflow Processes to Prepare for System Change** (Module 3) – Training module and implementation guide with great tools for mapping workflow:
  https://www.ahrq.gov/takeheart/training/module-3/index.html

- **Building and Implementing a Successful Automatic Referral System** (Module 5) – Training Module and Implementation Guide from TakeHeart: https://www.ahrq.gov/takeheart/training/module-5/index.html

- **Care Coordination** (Module 6) – Training Module and Implementation Guide from Takeheart for improving CR care coordination processes: https://www.ahrq.gov/takeheart/training/module-8/index.html

III. Alternative Options for CR Delivery

Virtual delivery of CR helps meet the growing demand. This section provides information about delivering virtual or hybrid CR models, which help address some of the challenges of on-site/in-person CR, such as transportation issues, long distances to centers, COVID infection concerns, and patient work schedules or family obligations. Even if current CR programs were all operating at full capacity today, there would be availability for only 50% of eligible patients.

Terminology

Models of CR delivery		Description
Facility-based/in-person CR	Synchronous/In-person	CR patients and clinicians are in the same location at the same time. Patients are observed directly during exercise sessions.
Non-facility-based or Home-based CR sessions	Synchronous/Real-time – virtual Asynchronous - remote	CR patients and clinicians are in different locations and engaging in real-time communication through an audio-visual platform (i.e., Zoom). Clinicians observe the patients over video. Exercise occurs at times outside of direct communication. Patients may log vital signs and share them over the phone or digitally. CR clinicians and patients may have periodic in-person, telephonic or virtual meetings.
Hybrid CR	Combines in-person and home-based CR	

IV. Virtual CR Considerations

Questions To Ask When Considering Whether To Offer Non-Facility-Based CR Options:

- Does your program have low enrollment rates?
- Are you in or near a CR desert where eligible patients have no feasible access to on-site CR?
- Do you have capacity issues leading to delays in enrollment?
- Do you have strong financial incentives to avoid readmissions of CR-eligible patients? (High readmission rates for AMI or heart failure can impact Medicare payments)
- Will key payers reimburse you for synchronous, real-time audio-visual CR? (Medicare is reimbursing for virtual CR during the COVID public health emergency)
- Can you do it effectively, ensuring all core components are included?

Getting Started:

After assessing the situation (see questions above), meet with the team to start planning a small pilot program.

Work with EMR and IT colleagues to help with planning and set-up for Zoom (for example) sessions and remote patient monitoring.

Equipment considerations – for example, pulse oximeters help patients monitor their heart rate during home exercise.

Consider partnering with other programs, especially if part of ACO or a system with several CR centers.

Use exercise videos online rather than duplicating what might already be available.

Establish a backup person for each virtual session to help with non-emergent clinical questions or connectivity issues.

Deliver dietary, tobacco cessation, and other educational sessions asynchronously.

Keep groups small (i.e., six participants) and then reassess.

Collect data: number of visits, feedback from patients and staff, what works, and what doesn't.

Safety Considerations:

- Conduct the initial assessment and stress test on-site before the virtual sessions begin.
- Have regular, virtual check-ins with patients.
- Have the patient come on-site for an in-person visit and evaluation **every 30 days**.
- Monitor heart rate, blood pressure and patient's perceived exertion for each session.
- Establish an agreed-upon emergency plan for all off-site exercise (may involve having a friend or family member at home or nearby during the exercise routine).

Training and Resources for Virtual Delivery of CR:

- Virtual Rehabilitation Module Series from American Association of Cardiovascular and Pulmonary Rehabilitation (free for members, payment required for non-members, CEs are included): https://www.aacvpr.org/Learn/Learning-Center/Virtual-Rehab-Module-Series
- Home-based CR example: https://www.henryford.com/services/cardiology/support/cardiac-rehab/home-based-cardiac-rehabilitation
- Cardiac Rehab during COVID: Cardiac Rehab in the COVID Era and Beyond: mHealth and Other Novel Opportunities (nih.gov)
- From **AHRQ Takeheart Initiative**: **Options to Expand System Capacity and Patient Centeredness** (Module 10): visit this site for an implementation guide and information about different virtual and hybrid options for CR: https://www.ahrq.gov/takeheart/training/module-10/index.html
- American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) Program Directory: https://www.aacvpr.org/Program-Directory

Home-Based CR and Health Equity – Case Example:

The Veterans Health Administration serves a racially and ethnically diverse Veteran population that is more at risk for cardiovascular disease. In response to health disparities, some VA Medical Centers provide home-based CR with remote monitoring, coaching and education. Since many veterans travel long distances, with associated costs, getting to a VA Medical Center for on-site CR is challenging. This leads to less than 10% of eligible veterans enrolling in CR. With the successful home-based program, veterans experienced improved health and had similar outcomes to those who participated in on-site CR.
https://www.va.gov/HEALTHEQUITY/docs/CVD_Disparities_Home_Based_Cardiac_Rehab.pdf

V. Billing and Reimbursement

Medicare Coverage information:
https://www.cms.gov/files/document/mln7561577-conditions-coverage-outpatient-cardiac-rehabilitation-programs.pdf

VI. Additional Resources

Resources for You

American Heart Association:
https://www.heart.org/en/health-topics/cardiac-rehab/cardiac-rehabilitation-tools--resources

TakeHeart Initiative:
https://takeheart.ahrq.gov/takeheart-initiative/training

https://takeheart.ahrq.gov/resource-center

Million Hearts Cardiac Rehab Change Package:
https://millionhearts.hhs.gov/files/Cardiac_Rehab_Change_Pkg.pdf

Cardiac Rehabilitation Collaborative:
https://millionhearts.hhs.gov/about-million-hearts/optimizing-care/cardiac-rehabilitation-CRC.html

Resources to Provide to Your Patients

Basic information about Medicare and Medicare Advantage coverage for CR:
https://www.medicareadvantage.com/coverage/does-medicare-cover-cardiac-rehab

https://www.medicare.gov/coverage/cardiac-rehabilitation

Discharge checklist with CR referral:
https://www.heart.org/-/media/Files/Health-Topics/Cardiac-Rehab/Heart-attack-discharge-Checklist.pdf

Cardiac Rehab referral card:
https://www.heart.org/-/media/Files/Health-Topics/Cardiac-Rehab/Cardiac-Rehab-Post-Card.pdf

Mended Hearts® HeartGuide™: Designed to empower patients, parents, caregivers and families with information, resources and support: https://www.myheartvisit.org/heartguides

A Walkthrough of Cardiac Rehab Phases 1-4 (verywellhealth.com)

Federal Communications Commission Affordable Connectivity Program:
https://www.fcc.gov/acp