

Implementation Guide for Enhancing Care Coordination for CR



Acronym List

Term	Abbreviation
AACVPR	American Association of Cardiovascular and Pulmonary Rehabilitation
AR	Automatic Referral
CC	Care Coordination
CR	Cardiac Rehabilitation
CRCP	Cardiac Rehabilitation Change Package
IG	Implementation Guide
EMR	Electronic Medical Record
PPT	PowerPoint Presentation
QI	Quality Improvement
SDOH	Social Determinants of Health

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Project Overview

What is TAKEheart?

TAKEheart is an initiative of the Agency for Healthcare Research and Quality (AHRQ) that is designed to help hospitals and health systems implement **two evidence-based strategies** that have been proven to increase patient participation in cardiac rehabilitation (CR): **automatic referral (AR) with effective care coordination (CC).**

TAKEheart provides training, guidance, and tools needed to plan, prepare for, and undertake the process changes needed to implement these two strategies.

Implementation Guide (IG) Purpose and Supplementary Materials

This IG is designed to provide actionable, step-by-step guidance for redesigning processes to enhance care coordination for patients referred to CR.

Before or after you review each section of this IG, you are strongly encouraged to review the section with the same name in the companion [Enhancing Care Coordination Slide Deck](#). The slides provide additional information about the WHAT and WHY of the activities described in the IG. This information is presented in a customizable PPT format so it can be easily shared with other staff whose support or involvement you will need to succeed in your redesign activities.

The third component of the TAKEheart Consolidated Curriculum for Enhancing Care Coordination is the associated [Resource Guide](#), which contains additional tools, templates, articles, and other rich materials expanding on the topics covered in the IG.

The guidance provided in these TAKEheart training materials is meant to supplement the recommended process changes and corresponding resources presented in the [Million Hearts®/AACVPR Cardiac Rehabilitation Change Package \(CRCP\)](#). The CRCP was developed to help cardiac rehabilitation programs, hospital QI teams, and public health professionals with whom they partner, implement strategies for increasing patient participation in CR. You are strongly encouraged to explore the contents of the CRCP, especially the section devoted to **enrollment and participation!**

Process Redesign Takes Time!

Implementers should plan on months, not weeks, to enhance their CC processes. Time requirements will vary with existing resources, staffing plans, and the scope of desired enhancements to current CC practices.

Chapter 1: Understanding Care Coordination for CR

Care Coordination for CR (henceforth "CC") is a group of workflow processes and activities designed and systematically executed to help optimize enrollment and participation in CR by eligible patients.

Patients referred to CR come from diverse backgrounds and face a wide variety of challenges that can impact their ability to enroll or participate in CR. Unfortunately, many CR-eligible patients miss out on the opportunity to participate in CR, because there is no effective care coordination to operationalize the CR referral and facilitate the transition of the patient from the inpatient hospital setting to an outpatient CR program. **An effective CC system addresses individual patient needs and concerns that may impact their ability to enroll and participate in CR.**

The literature describing the impacts of CC on patient participation in CR focuses narrowly on the role of an assigned "liaison" in providing CC. For example:

- Sherry Grace, PhD (2011) and her team define liaison as one of several individuals (nurse, nurse practitioner, physical therapist, and/or patient graduate) educating and guiding eligible patients through the enrollment process to CR.
- Phil Ades, MD (2017) and his team defined liaison as a staff member(s) who acts as a coach, meeting with eligible inpatients to educate them about the CR and guide them through the enrollment process.

By contrast, TAKEheart focuses on **the CC system**, which is a multifaceted set of processes that support communication and knowledge-sharing to:

- Facilitate patient and provider conversations
- Coordinate referrals and helps patients navigate care transitions
- Identify and address patient needs and concerns
- Educate patients, families, and caregivers
- Empower and engage patients to take an active role in their care.
- Connect patients to community resources

Examples of CC activities include:

- Working with the providers to understand opt-outs and ease concerns to ensure eligible patients are referred
- Screening patients for needs and concerns can help identify patients at risk for not enrolling or dropping out
- Understanding available community resources and helping to connect patients to solve issues, for example, transportation & insurance coverage.
- Connecting patients with buddies (e.g., former graduates) to support them through the program

Most hospitals and CR programs have at least some aspects of these CC processes in place. This guide will help you improve your existing practices and processes -- or start from scratch if necessary.

This guide will walk you through the steps necessary for conducting a structured quality improvement (QI) project for enhancing care coordination (CC) for people referred for CR services. As with any QI initiative, you will be encouraged to focus on following these steps:

- Preparation for QI
- Planning the Improvement Effort
- Implementing Change
- Monitoring & Adjustment

NOTE:

While supporting patients with effective CC through program *completion* should be the goal for all patients, TAKEheart materials are focused more narrowly on CC activities most likely to increase *referrals and enrollment*.

Chapter 2: REVIEW: Planning Your Improvement Effort

This section is a high-level **review** of the essential steps for planning your CC improvement effort. These steps are described in detail in the [Getting Started Training Curriculum](#).

- If you have recently worked through the Getting Started curriculum, you can skip this chapter.
- If this is your first QI project, you are strongly encouraged to review those materials first!

Foundational Steps

Identify a Champion and Engage Leadership

You will need someone to champion the improvement process who can gain the support of key leadership and communicate effectively with all staff assisting with the effort.

Form a QI Team

Identify and enlist the support of all staff involved with CR patients or processes *at any point from inpatient admission to first day at CR*. Your team will help in both planning and executing improvements to your CC processes. Your team will ideally include:

- The CR Champion (You might consider having two Champions, one on the inpatient side and one on the outpatient side, working together to promote effective CC.).
- CR staff
- Data Analysts who can help you understand the geographic and demographic features of your service area.
- A Patient Navigator (This role can be filled by a variety of individuals, including CR staff; discharge planners, social workers, care managers and/or even patient ambassadors.).

Additional details about key considerations in putting together a team and helping it function are described in the [Getting Started Slides and IG](#).

Foster Buy-in

CC is a critical component of an effective CR program. Share these points with leadership and potential team members to foster buy-in:

- CC improves health outcomes
- At-risk patients need the most CC support
- Financial stability of the CR program depends on patient attendance, completion
- CR can help reduce hospital readmissions

See the [Getting Started Resource Guide](#) for a one-page infographic overview of the benefits of increasing CR participation that can be distributed to colleagues.

Develop an Aim Statement

The aim statement answers the question: What are you trying to accomplish? In this case, your aim statement should be explicit about what enhanced care coordination processes are specifically being designed to achieve.

Hold a team meeting to create an aim statement that describes what you are seeking to achieve. Use the following worksheet to help guide the process:

<http://www.ihl.org/resources/Pages/Tools/Aim-Statement-Worksheet.aspx>

- Include a S.M.A.R.T. goal that is:
 - Specific: describe a specific outcome or process.
 - Measurable: define criteria for project success.
 - Achievable: set the bar for project success.
 - Relevant: must pertain to the aim of the project.
 - Timebound: must have start and finish dates.
- Work as a team.
- Produce a statement that reflects the team's shared vision.
- Involve all team members to ensure their buy-in.

Create an Action Plan

Use the Action Plan Template included in the Appendix to the [Getting Started IG](#). Your Action Plan will include a list of tasks and subtasks that will need to be completed to identify people to lead or complete each task.

Tips for Use:

- Set a target date for completion of individual tasks.
- Remember that some tasks may be quick and others might take time.
- Expect to add new tasks as need needs arise.
- Refer to your aim statement periodically and let it guide the tasks
- Establish S.M.A.R.T. goals for each task (See S.M.A.R.T. above.).
- Consider resource needs and priorities (e.g., features might need to be added to the EHR system; staffing needs) .

Identifying Areas for Improvement

To determine where and how to improve, you will need to answer these questions:

- Do you have appropriate CC activities in place to support the full span of patient needs from referral to CR through enrollment and initial attendance in an OP program?
- How well are your in- and out-patient CC activities working?
- What priorities should you set for improving your CC system?

Conduct a **workflow mapping exercise** as described in the [Getting Started Slides](#) and [Getting Started Implementation Guide](#) as a first step in generating answer to these questions.

Here are some likely topics for discussion during your workflow mapping exercise:

- Where do patients fall through the cracks?
- Are conversations occurring between patients and the referring clinician?
- Are patients screened for needs and concerns?
- Who is communicating with the patient?
- How is health insurance factored in?
- Who follows up to make sure the patient enrolls?
- What is the wait time?

Patients are another potential valuable source of information about where your CC processes are falling short. Follow up with patients who were referred but failed to enroll -- or who enrolled but never attended - to learn more about challenges or barriers they faced that you might have been able to address. Are there any steps you could have taken or information you could have provided that might have resulted in their participation?

Chapter 3: Redesigning Processes to Improve CC

Key Activities During Hospitalization

The in-patient length of stay tends to be short. The goals for this phase are to: get to know the patient and what is important to them; share this information with everyone involved in their care; and tailor their plan of care.

Table 1: Key Activities During Hospitalization

Key Activities	Who Should Do It?	When Should It Be Done?	What Skills/Training/Capacities Are Necessary?
Screen the patient for challenges to enrollment and/or participation	Collaborative effort by the interdisciplinary care team	Upon admission	Screening tools, cultural sensitivity, understanding of SDOH
Make sure eligible patients are identified and referred	Any member of the interdisciplinary team (RN, PT, RT, MD Discharge planner, Care manager)	Prior to discharge, ideally in-person	CR eligibility, relationship management with providers, automatic referral
Provide CR education	Any member of the interdisciplinary care team, including discharge planner and/or care manager	Throughout the hospital stay; Develop a letter introducing CR to be given in person at discharge	Learning styles, health literacy, patient engagement, knowledge of outpatient CR enrollment & workflow processes
Clinician/clinician conversation for complex patients discharged to post-acute care facilities	Treating clinician	Prior to discharge	Relationships with local post-acute care facilities: home care agencies, skilled nursing and inpatient rehabilitation facilities
Clinician/patient conversation about CR	Treating clinician	As soon as possible, with family members present, so first CR session can be scheduled before discharge	Patient engagement, effective communication, cultural competence

Key Activities	Who Should Do It?	When Should It Be Done?	What Skills/Training/Capacities Are Necessary?
Confirm the referral and the destination of the referral	Any member of the interdisciplinary care team, including discharge planner and/or care manager	Prior to discharge	AR system, CR eligibility, relationships with external programs
Warm handoff from inpatient CR staff to outpatient CR staff	Any member of the interdisciplinary care team including discharge planner and/or care manager	Prior to discharge, ideally involving the patient and family in the discussion	Listening, effective communication, SDOH
Schedule first outpatient CR visit	Any member of the interdisciplinary care team, including discharge planner and/or care manager	Best practice dictates scheduling before the patient leaves the hospital	Communication, collaboration, outpatient CR program and workflow processes

Facilitating Enrollment

The goal for providing optimal care coordination is to ensure the patient enrolls in CR. Reducing the time from inpatient to outpatient care is a known driver of increased CR participation.

Table 1: Key CC Activities to Facilitate Enrollment in Outpatient CR

Key Activities	Who Should Do It?	When Should It Be Done?	What Skills/Training/Capacities Are Necessary?
Track complex medical patients discharged to post-acute care facilities	Any member of the interdisciplinary care team including discharge planner and/or care manager	For the duration of the post-acute care stay, until the patient starts outpatient CR	Organization, relationships with post-acute care facilities, effective communication, knowledge of outpatient CR

Key Activities	Who Should Do It?	When Should It Be Done?	What Skills/Training/Capacities Are Necessary?
Schedule first outpatient CR visit	Any member of the interdisciplinary care team, including discharge planner and/or care manager	Best practice dictates scheduling before the patient leaves the hospital	Communication, collaboration, outpatient CR program and workflow processes
Provide patient support	Community health worker, former CR graduates acting as ambassadors	Between discharge and first visit	Listening, effective communication; knowledge of outpatient CR
Connect patient with needed community resources	Social Worker, Discharge planner, Care manager,	Between discharge and first visit	Awareness and relationships with community resources

Click [here](#) to view an AACVPR turnkey using inpatient liaisons.

Enrollment in Outpatient CR

Once the patient arrives at outpatient CR, use the same multidisciplinary approach, leveraging the skills and professional backgrounds of the entire team to support the patient through the completion of CR. Be flexible and think “outside the box” to create efficient and effective solutions to accommodate patients so they can complete their program.

Chapter 4: Identifying and Addressing Patient Needs and Reducing Disparities

An effective CC system includes processes for identifying and addressing the specific needs and concerns that are impeding patients' enrollment and participation in CR. This patient-centered approach is also the most likely way to reduce known disparities in CR participation based on race, sex, and socioeconomic status.

Identifying Patient Needs and Concerns

- The BEST ways to understand an individual's unique needs are to:
 - Listen
 - Ask
 - Observe

The conversations you have with your patients before, during, and after CR sessions are invaluable opportunities to elicit important information, establish trusting relationships, and show your desire to address their needs and concerns.

- Screening tools are another way to assess patient needs. These include:
 - Standard clinical assessment tools (e.g., the Patient Health Questionnaire-9 (PHQ-9) for depression)
 - [Cardiac Rehabilitation Barriers Scale](#)-- this is an online patient self-assessment instrument for barriers to CR. At the end of the assessment the patient is given tips for mitigating identified potential barriers.
 - [Risk Stratification Tool for Non-Adherence in CR](#)-- this tool assesses a patient's relative risk for non-adherence.

Anticipating Needs: Understanding Social Determinants of Health (SDOH)

Some of a patient's needs can be inferred from their environment. These environmental factors are referred to as SDOH.

The CDC defines SDOH as "the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."

Understanding broad findings from SDOH research, combined with your own understanding of the environmental, cultural, and social circumstances of the patients you most commonly serve can:

- Frame the questions you might want to ask patients.
- Help shape individualized, clinically appropriate, and realistic CR plans for your patients.

- Inform strategic choices you make for your CR program (e.g., times of day to offer services; whether to offer a hybrid option; social services that you link to).

Addressing Patient Needs

Table 4 below provides an overview of challenges and concerns that your patients are likely to face and potential solutions for addressing them.

Table 4: Common Challenges and Ways to Address Them

Challenges/Barriers/Concerns		Possible Solutions /Responses
Individual Concerns	<ul style="list-style-type: none"> ▪ Cultural values/beliefs ▪ Need to work ▪ Child or eldercare responsibilities 	<ul style="list-style-type: none"> ▪ Offer hybrid versions of CR (virtual/in-person) ▪ Connect with community resources and services ▪ Offer flexible hours (after/before work and weekends)
Financial Barriers	<ul style="list-style-type: none"> ▪ Inability to afford co-pay ▪ Limited insurance coverage 	<ul style="list-style-type: none"> ▪ Confirm insurance coverage ▪ Be explicit about cost from the start ▪ Set up payment plans ▪ Help patients with insurance issues: approvals, documentation ▪ Set up philanthropic fund to partly underwrite CR costs for those without insurance or those with high copays ▪ Create financial incentives ▪ Adjust treatment plans
Education	<ul style="list-style-type: none"> ▪ Poor health literacy ▪ Failure to believe they can do it on their own ▪ Don't identify with brochure pictures 	<ul style="list-style-type: none"> ▪ Use plain language in discussing benefits of CR ▪ Train staff in patient engagement techniques ▪ Enlist family and caregivers to reinforce the value of CR ▪ Recruit CR ambassadors: CR graduates who provide peer-to-peer support and encouragement ▪ Ensure educational brochures and materials appeal to a wide audience, showcasing a variety of ethnicities, languages, and ages
Behavioral Health	<ul style="list-style-type: none"> ▪ Pre-existing or new onset anxiety/depression ▪ Social isolation 	<ul style="list-style-type: none"> ▪ Screen for anxiety, depression, and social isolation ▪ Enlist the assistance of hospital behavioral health staff ▪ Establish a patient ambassador program ▪ Connect with community resources and community health workers
Transportation	<ul style="list-style-type: none"> ▪ Costs ▪ Access 	<ul style="list-style-type: none"> ▪ Hospital-sponsored bus passes ▪ Family and caregivers ▪ Hybrid versions of CR (virtual/in-person) ▪ Flexible hours (before/after work, weekends) ▪ Community resources and services ▪ Parking passes/waivers

Chapter 5: Equipping Staff to Lead & Support CC

Help staff adjust to changes in responsibilities and workload associated with new CC processes by devoting time to **orientation, training, and onboarding**, as described below. Document all these activities for reference and future use, in the event of inevitable staff turnover. It may also be necessary to **clarify new expectations** and/or formerly **revise job descriptions**.

Start with the [FREE ONLINE COURSE](#) titled **Implementing Automatic/Systematic Cardiac Rehab Referral with Bedside Encouragement for Enrollment**. This comprehensive, vetted training for clinical care team members on HOW to encourage patients to participate in CR was developed by the Joint International Council and Canadian Association of Cardiovascular Prevention and Rehabilitation and is available in English, Spanish, and three other languages.

Orientation

Use staff meetings and/or written orientation guidelines to explain the purpose and expected benefits of new workflow processes and how their roles and workloads might be impacted. Make written materials easily accessible and ensure that all staff review them.

Training

Staff may require training in one or more of the key areas to successfully perform their enhanced CC responsibilities. Below we identify key areas where training may be needed and resources you can draw on to provide training for your staff.

Extracting Data about Patient Referral and Status: Some staff may need to be trained in how to obtain information from the EMR for each patient who has been referred, including: name of patient's clinician; CR qualifying diagnosis or procedure; whether the patient has been contacted; and whether the patient has been scheduled for Outpatient CR.

Recommended actions:

- Design your workflow so that staff can get this information *while patients are still in the hospital*.
- Ask staff who understand these processes to train those who don't.

Patient Tracking: Systematic patient tracking is essential for effective care coordination. The introduction of new or redesigned systems or processes for referring or enrolling patients is an important time to confirm that effective tracking systems are in place and used by all relevant staff. This form may be helpful for this purpose: [R-35-CRCP-Inpatient Tracking Form.xlsx \(live.com\)](#)

Health Literacy: Health literacy is the ability to obtain, read, process, understand, and use healthcare information to make appropriate health decisions and follow instructions for treatment. Health literacy is considered a modifiable risk factor for health disparities.

Recommended actions and resources:

- Encourage staff to
 - Use plain language in dealing with ALL patients and families.
 - Ask patients to teach-back what they learned.
 - Use a variety of communication methods with patients, including visual and written materials.
 - Seek support from interpreters to better serve patients with limited English proficiency.
- Consider hiring CR staff with language abilities that meet your community's needs
- Review these resources for additional information and best practices
 - [AHA - Health literacy and patient safety: Help patients understand](#)
 - [AHRQ - Health Literacy Universal Precautions Toolkit, 2nd Edition](#)

Social Determinants of Health

The following resources can help CR staff understand, anticipate, and respond to the common challenges that may prevent eligible patients from enrolling or participating in CR:

- [Kaiser Family Foundation - Beyond Health Care: The Role of Social Determinants in Promoting Health and Health Equity](#)
- [Circulation - Addressing Social Determinants of Health in the Care of Patients with Heart Failure: A Scientific Statement from the American Heart Association](#)
- [The Grady Heart Failure Program: A Model to Address Health Equity Barriers](#)

Additional Training

Training in the following areas may further help improve staff-patient conversations about CR.

- Motivational interviewing
 - [Motivational Interviewing: Good Example - Alan Lyme](#)
 - [Motivational Interviewing: A Bad Example - Alan Lyme](#)
 - [Enhancing Motivation for Change in Substance Use Disorder Treatment](#)
- Patient engagement strategies
 - [16 ways to improve your communication skills with patients](#)
 - [Tips for Improving Communication with Older Patients](#)
- Patient self-management techniques
 - [Family Caregiver Alliance - Communicating with Your Doctor](#)
- Role playing time to practice skills
 - [IHI - SBAR Tool: Situation-Background-Assessment-Recommendation](#)

- Anti-bias and cultural sensitivity
 - [Advancing Health Equity - Tips for Developing a Community Advisory Board](#)

Onboarding New Staff

Provide mentorship and opportunities for departing staff to train their replacements whenever possible. Make written orientation materials easy to find and access.

Creating or Adjusting Expectations and Job Descriptions

New roles or responsibilities associated with enhanced CC processes may require changes in expectations and position descriptions.

Recommended actions:

- Describe all changes in writing.
- Seek input from staff.
- Define specific tasks and responsibilities for each role.
- Establish clear expectations and performance criteria.

Educational Resources for Patients

Educational resources can be a great supplement to the in-person services of a community health worker, social worker, care/case manager, CR liaison, or care coordinator to facilitate enrollment. **Encourage your staff to provide resources such as the following to their patients before or after the in-person consultation:**

- Educational videos (see available videos shared by the Million Hearts [Cardiac Rehabilitation Collaborative \(CRC\) on YouTube](#))
- Handouts:
 - [AACVPR CR Fact Sheet](#) (English)
 - [Cardiac Rehabilitation – Infographic](#) (English)
 - [Rehabilitación cardíaca: MedlinePlus enciclopedia médica](#) (Spanish))

Chapter 6: Using Data to Improve CC and Monitor Progress

Data for Enhancing CC

Improving CC for patients requires access to the following data:

- The list of all patients identified as eligible for CR and whether they have been referred
- Information on whether each of these patients has been contacted about CR and the outcome of those conversations
- A waiting list of all patients who have enrolled in CR (or stated they wish to begin) but haven't yet started due to capacity limits
- Indication of whether each patient has completed the enrollment process and attended an initial session
- Attendance information for each patient, as well as notes related to conversations about missed sessions
- Clinical data recording key metrics to inform rehab assignments and track progress over time
- Patient notes documenting any issues encountered during rehab and program staff's efforts to assist them
- Records of follow-up with the referring cardiologist informing them of patient enrollment and progress
- Reason patient may have dropped out of CR before program completion
- Contact information to follow up with each patient by phone, email, and mail (or notes that the patient can't be contacted by some of these modalities)
- Patient demographic information including age, sex, race/ethnicity, marital status, etc.
- Information about patient insurance, transportation, and other factors that may impact ability to participate

Review this list with your team, deciding if what items to drop and what items to add.

Data for monitoring progress

All CR programs are being encouraged to use the following performance and quality measures. These come from the 2018 report of the ACC/AHA titled [2018 ACC/AHA Clinical Performance and Quality Measures for Cardiac Rehabilitation: A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures](#). In this report, each measure is described in detail and inclusion and exclusion criteria are specified.

- Performance Measures
 - CR Patient Referral from an Inpatient Setting
 - Exercise Training Referral for HF From Inpatient Setting
 - CR Patient Referral from an Outpatient Setting
 - Exercise Training Referral for HF From Outpatient Setting
 - CR Enrollment-Claims Based
 - CR Enrollment-Registry/Electronic Health Records Based
- Quality Measures
 - CR Time to Enrollment
 - CR Adherence (≥36 sessions)
 - CR Communication: Patient Enrollment, Adherence, and Clinical Outcomes

With input from all your stakeholders, decide on your performance measures, start with a few, and add more as you progress.

TIP:
Supplement quantitative data with input from staff and patients!
Ask them what is and isn't working well.
Discuss struggles and failures with a focus on learning and improvement.