Building and Implementing a Successful Automatic Cardiac Rehab Referral System

Module 5

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Kathy Lee Bishop, PT, DPT
TAKEheart Training and Technical Assistance Components

Training sessions guided by the Million Hearts®/AACVPR Cardiac Rehabilitation Change Package (CRCP), located in the Resource Center [TAKEheart Website](#)

**Monthly Training Sessions: What to do and Why** -- Fifth of 10 modules

**Implementation Guide (IG): Focus on the How**
Supplemental documents which outline the content, and provide specific actions, steps and resources designed to assist with integrating the training material

**Partner Hospital Peer Action Groups (PH PAGs): Discussion of the HOW**
Meet with coaches to discuss module content, share ideas and offer support to other hospitals in the group
American Hospital Association (AHA)/Health Research and Education Trust (HRET):
TAKEheart AHRQ’s Initiative to Increase Use of Cardiac Rehabilitation
Module 5: Building and Implementing a Successful Automatic Cardiac Rehab Referral System
August 19, 2021

The planners and faculty of TAKEheart Initiative Module 4 indicated no relevant financial relationships to disclose in regard to the content of their presentation with the exception of:

Amy Miller, MD, PhD, faculty for this educational event, is on the medical advisory boards for Philips and Wolters Kluwer. This presentation has been reviewed and is found to contain no bias. There are no other relevant financial relationships to disclose regarding the content of this presentation.

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education through the joint providership of the American Board of Quality Assurance and Utilization Review Physicians, Inc. (ABQAURP) and American Hospital Association (AHA) / Agency for Healthcare Research and Quality (AHRQ). ABQAURP is accredited by the ACCME to provide continuing medical education for physicians.

The American Board of Quality Assurance and Utilization Review Physicians, Inc. designates this live activity for a maximum of 1.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ABQAURP is an approved provider of continuing education for nurses. This activity is designated for 1.0 contact hours through the Florida Board of Nursing, Provider # 50-94.
What Do We Know?

**Building the Foundation**

**Module 1 & 2**
- Created a multidisciplinary team with a strong CR champion to navigate and push the project forward
- Created an aim statement
- Began to develop an action plan

**Module 3**
- Developed a deep understanding of current workflow processes for referrals, care coordination and data collection to prepare for redesign

**Module 4**
- Explored the value of data to support the implementation of automatic referral and care coordination systems
Modules 5-10: Leaping

- Changing and redesigning CR workflow processes to overcome your current problems and process failures related to referrals, enrollment, participation and adherence.
What Constitutes a Completed Referral?

**Good**
- Automatic referral (AR) of eligible patient to CR

**Better**
- Required for hospitals to get referral credit
- AR + ordering clinician conversation with referred patient about CR

**Best**
- AR + patient conversation + scheduling the patient for the first CR visit prior to discharge
Learning Goals

Upon completion of this module, attendees will be able to:

1. Explain WHY implementing automatic referral benefits CR patients and why automatic referral makes care coordination critical

2. Understand HOW to design and collaborate with IT to develop EMR specifications for an automatic referral system

3. Create a testing plan to begin testing your planned approach to automate referral for cardiac rehabilitation
Amy Miller, MD, PhD
Associate CMIO for Mass General Brigham Healthcare
(EPIC EMR)

Kathy Lee Bishop, PT, DPT, CCS, FNAP
Board-Certified Cardiovascular and Pulmonary Clinical Specialist
Program Manager, Emory Saint Joseph’s Hospital Cardiac Rehabilitation Program
The purpose of TAKEheart is to close the gap between Cardiac Rehabilitation (CR) evidence and practice.
What Do We Mean By Automatic Referral?

- Automatic electronic medical record-based CR referral
- Referral built into an order set
- Default, “opt-out” model
- All patients with qualifying diagnosis are referred and relevant provider notified
PARTICIPANTS

- Organizational background
- Why implementing AR was important
- How you implemented AR
- Key advice for peers just starting the process
Causes of Failures to Refer Eligible Patients

- **Problematic Beliefs**
  - Belief that CR will not be beneficial
  - Belief the patient will not attend anyway, so why bother

- Uncertainty about who is responsible for making the referral or if someone has already referred the patient

- Uncertainty about whether the patient meets inclusion and/or exclusion criteria

- Uncertainty about **when** (in the hospital, after procedure, or following hospitalization), the patient can begin CR or **how** (tell the patient, enter into the discharge order set, notify the CR program, a combination of approaches) the referral should be made

**These are the failures automatic referral is designed to prevent!**
### How Automatic Referral Addresses Problematic Beliefs

<table>
<thead>
<tr>
<th>Problem Beliefs</th>
<th>Automatic Referral Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief that CR will not be beneficial</td>
<td>Referrals made using consistent, evidence-based criteria</td>
</tr>
<tr>
<td>Belief the patient will not attend anyway, so don’t bother</td>
<td>Implicit biases excluded from automated referral</td>
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</table>
## How Automatic Referral Addresses Process Failures

<table>
<thead>
<tr>
<th>Problem Processes</th>
<th>Automatic Referral Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty about when the patient can begin CR or how the referral should be made</td>
<td>Referral consistently embedded into discharge order set</td>
</tr>
<tr>
<td>Uncertainty about who is responsible for making the referral or if someone has already referred the patient</td>
<td>EMR makes the referral and appropriate physician retains ability to opt-out the patient</td>
</tr>
<tr>
<td>Uncertainty about whether the patient meets inclusion and/or exclusion criteria</td>
<td>EMR programmed to consistently identify eligible patients</td>
</tr>
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</table>
Different Referral Patterns

- Eligible patients in your hospital w/ your hospital EMR
- Eligible patients in other hospitals /practices using your EMR
- Eligible patients in other hospitals /practices w/ an EMR that can interface
- Eligible patients in other hospitals /practices w/ an EMR that can’t interface

Internal CR Program
External CR Program
Different Implementation Strategies

<table>
<thead>
<tr>
<th>Easiest</th>
<th>Eligible patients in your hospital w/ your hospital EMR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The focus of TAKEheart and the best place to begin. It easily allows for working both ends of automatic referral and care coordination processes</td>
</tr>
<tr>
<td></td>
<td>IT changes are likely the same. More work will be required to gain provider buy-in; more people will need to be involved to plan and implement</td>
</tr>
<tr>
<td></td>
<td>Requires embedding automatic referral in two separate EMRs and more people need to be involved in care coordination planning</td>
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<tr>
<td></td>
<td>Without two interfacing EMRs, automatic referral can’t be implemented; care coordination processes can be developed and strengthened to increase referrals and promote successful completion</td>
</tr>
<tr>
<td>Hardest</td>
<td>External Programs</td>
</tr>
<tr>
<td></td>
<td>Automatic referrals outside the system may not be seen as a financial priority. Strengthening informal referral processes would be an efficient use of resources</td>
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</tbody>
</table>
Automatic referral is not a substitute for the “Human touch”

More referrals should lead to more conversations with patients and families about CR

Cardiologist recommendations and family support both strongly impact patient participation in CR
How to Successfully Implement Automatic Referral

Implementation Overview

1. Design automatic referral
2. Conduct initial planning
3. Staff training
4. Automatic referral testing
5. Module 5
6. Rollout & reinforce automatic referral
7. Module 7
8. Evaluate & improve automatic referral
9. Extend & spread automatic referral use
10. Define a clear, compelling aim
11. Module 5

AHRQ's Initiative To Increase Use of Cardiac Rehabilitation
Define a Clear & Compelling Aim

Define an aim statement with a S.M.A.R.T.* goal for your project (see the discussion in Module 1 & 2)

Example Aim Statement:

We aim to increase the number of patients with MI, PCI and CABG who are referred, enrolled and participate in cardiac rehabilitation by 30%. This is important because we want to improve patient care and outcomes and reduce hospital readmissions. We will accomplish this aim by implementing automatic referral with care coordination by March 31, 2022. We intend to see a 30% increase in current participation rates by December 31, 2022.

* S.M.A.R.T. = Specific, Measurable, Applicable, Realistic, & Timely
Conduct Initial Planning

See combined modules 1 & 2 for a refresher on creating a strong implementation team

**FINALIZE YOUR TEAM**

**CR Champion**: leads the team and advocates for the initiative

**Cardiac care clinicians**: cardiologists, cardiac surgeons, physician assistants, or nurse practitioners provide input on treatment and referral

**Cardiac Rehabilitation clinicians**: nurses, physical therapists, exercise physiologists, physicians provide valuable perspectives on enrollment and participation

**Cardiac care manager**: provides important information about current workflows and potential areas for improvement

**Information Technology (IT) staff**: possess the skills necessary to enact the required changes for automatic referral and data collection. May include IT vendor representatives.

**Quality improvement leaders (QI)**: provide insight into best practices for implementing and measuring quality improvement.

**Patients**: provide the end user perspective.

AHRQ's Initiative To Increase Use of Cardiac Rehabilitation
How Can Collaboration Projects Succeed?

INCLUDE IN PLAN

- Strong executive support / sponsorship with a shared understanding of project importance
- Clear project ownership
- Clear & effective governance / decision making
- Strong project management
Success Factors

INCLUDE IN PLAN

- Clear, achievable goals
- Well defined key tasks along with defined responsibilities and timelines for completing them (Action Plan – Mod. 2)
- Adequate resources; proper skills mix
- Collaboration with key stakeholders, including end users (front-line staff, patients)
- Adequate budget
Avoid Common Causes of Failure

**PITFALLS**

1. Unclear project requirements
2. Poor management
3. Lack of communication
4. No end-user involvement
5. Lack of quality testing
Listen To Key People

- Patients
- Cardiac Rehabilitation Champion
- Quality Improvement Specialist
- Reporting and IT Analytics Coordinator
- Ordering Provider
- IT Dept. Representatives
Accounting for Order Sets

What are order sets?
- A group of standard provider directives and or instructions regarding the care of a patient.
- A clinical decision support tool whose purpose is to prompt physicians to order appropriate treatments based on evidence-based practices.

Why do order sets matter?
- Physicians need to use the order sets with AR incorporated to meet the objectives of TAKEheart.
Four Crucial Design Factors

Who  When  How  Where
## WHO: Identify Eligible Patients

<table>
<thead>
<tr>
<th>PROCEDURE (CPT codes)</th>
<th>DIAGNOSIS (ICD-10 codes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cath Lab procedures</td>
<td>• MI</td>
</tr>
<tr>
<td>• PCI</td>
<td>• Chronic stable angina</td>
</tr>
<tr>
<td>• Surgical procedures</td>
<td>• Chronic stable heart</td>
</tr>
<tr>
<td>• CABG</td>
<td>failure</td>
</tr>
<tr>
<td>• Heart valve</td>
<td>• EF=&lt;35%</td>
</tr>
<tr>
<td>replacement/repair</td>
<td>• Outpatient referral</td>
</tr>
<tr>
<td>• Heart or heart/lung</td>
<td>• Medicare guidelines:</td>
</tr>
<tr>
<td>transplant</td>
<td>6 weeks post hospital</td>
</tr>
</tbody>
</table>
WHO: Eliminate Inappropriate Patients

See the Implementation Guide for this Module for lists of codes and criteria you can use for inclusion and exclusion criteria

- Exclude comorbidities/conditions for which CR would be contraindicated

- Eliminate redundancy, i.e., patients who already have an active referral
WHEN: A Time to Trigger Referral

**INPATIENT VS OUTPATIENT**

**Inpatient and Procedures**
- Discharge order set

**Outpatient**
- Care encounter

**NOTE:** These times catch the patient in a receptive state and enable conversations with the patient and family.
HOW: Use of the “Opt-out” Feature: Inpatient/Procedure Setting:

- Align your AR process with your existing workflow as much as possible
- Insert automatic referral into tools already being used, i.e., discharge order set
- Include a way to track the “opt-out” reason
- Include a feedback feature to inform refinements
Community Provider Referrals:
- Create a “hard-stop” alert
- Flag appropriate providers, e.g., cardiologists, and internists, during the care encounter
- Require providers to act for patients with qualifying diagnoses, e.g., heart failure
- Target appropriate outpatient providers
WHERE: Which CR Programs Will You Refer To?

MAY NEED THE ABILITY TO SEND THE REFERRALS TO MULTIPLE PROGRAMS

BE AWARE OF LOCAL/INTERNAL PROGRAMS AS WELL AS EXTERNAL PROGRAMS IN THE SURROUNDING COMMUNITIES

PATIENT CONVENIENCE IS A MAJOR FACTOR IN PARTICIPATION
Automatic Referral Testing
Testing Phases

Define Your Testing Process
Initial Bench Testing
Pilot Testing
Hospital System-wide Testing
Develop Your Testing Plan

What testing phases do you need?
What should each accomplish?
Who should be involved?
What should you be tracking and monitoring?
How will you get feedback from frontline staff?
How will you know when you’re ready for the next phase?
### Bench Testing

<table>
<thead>
<tr>
<th>Primary Purpose:</th>
<th>Verify that programming to identify eligible patients for referral to CR is working correctly in a secure environment that doesn’t risk patient care</th>
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<tbody>
<tr>
<td>Process</td>
<td>Use test cases to confirm that:</td>
</tr>
<tr>
<td></td>
<td>- All patients that should be referred to CR are identified</td>
</tr>
<tr>
<td></td>
<td>- All patients with exclusion criteria are not being referred</td>
</tr>
<tr>
<td></td>
<td>- Referrals are going to the correct provider</td>
</tr>
<tr>
<td></td>
<td>- Other requirements are being met</td>
</tr>
<tr>
<td>Duration</td>
<td>Clear, comprehensive guidance to programmers can avoid rework and shorten the process. Proceeding without rigorous bench testing is a common cause of implementation failure.</td>
</tr>
</tbody>
</table>
Question: In the chat box, tell us one useful insight you will take away from today’s training session.
Each session:
- co-led by a clinician and IT professional with direct experience implementing automatic referral using the EMR
- experts will respond to questions submitted in advance by persons registering for the event and to questions submitted by the Q&A session participants

Epic Session:
September 22, 2021
3:00-4:00 pm ET
Epic Q & A Registration Link

Meditech Session:
September 14, 2021
1:00-2:00 pm ET
Meditech Q & A Registration Link
Feel free to contact coaches with questions

**Action Steps**

<table>
<thead>
<tr>
<th>Continue</th>
<th>Refining your action plan for implementing automatic referral, making sure to assign responsibilities and set targets.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explore</td>
<td>Steps, actions and resources available in the Module 5 Implementation Guide</td>
</tr>
<tr>
<td>Discuss</td>
<td>Progress, challenges and solutions in your PH-PAG</td>
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</tbody>
</table>
Today’s presentation focused on the referral which is just half of the improvement project. Next month will begin the discussion of care coordination which makes up the other half of the project and works to complete the referral.

Help us help you!
Please answer the survey questions as you leave the event today.