

**Cardiac Rehabilitation Systems Change Strategy**

Using Cardiac Rehabilitation Referral Performance Measures in a Quality Improvement System

Subject	Content
<b>Definition/Description</b>	Using cardiac rehabilitation (CR) referral performance measures within a registry or hospital/system-based database to assess rates of referral to CR and to develop strategies to increase referral (and enrollment) of appropriate patients.
<b>Key Terms/Abbreviations</b>	<ul style="list-style-type: none"> <li>• CABG = coronary artery bypass graft</li> <li>• CMS = Centers for Medicare &amp; Medicaid Services</li> <li>• CR = cardiac rehabilitation</li> <li>• CR referral = includes documentation that (1) an order for CR was placed, (2) a discussion took place with the patient of the benefits of CR and the process of enrolling in CR, and (3) patient referral information was communicated to the receiving CR program.</li> <li>• CSA = chronic stable angina</li> <li>• EMR = electronic medical record</li> <li>• HF<sub>r</sub>EF = heart failure with reduced ejection fraction</li> <li>• MI = myocardial infarction</li> <li>• MIPS = Merit-based Incentive Payment System. MIPS combines three Medicare programs – the Physician Quality Reporting System (PQRS), the Medicare EHR Incentive Program for Eligible Professionals, and the Value-based Payment Modifier into a single program. MIPS requires reporting of quality measures, but will also include metrics related to resource use, clinical practice improvement, and meaningful use of certified electronic health records.</li> <li>• PCI = percutaneous coronary intervention</li> <li>• PM = performance measure. A PM is a measure used to track performance of a provider or facility and can be used to promote QI. Measures need to be well-designed and tested for use in specific settings to be used as PMs, because results can be publically reported or used to determine payment. Quality Measures are similar, but do not meet the stringent criteria required for PMs.</li> <li>• QI = quality improvement; in this case, improving the quality of patient care and outcomes related to CR.</li> <li>• QCDR = Qualified Clinical Data Registry. CMS designates some clinical data registries as QCDRs, which allow a</li> </ul>

	<p>provider/practice to submit quality data to CMS for payment and public reporting using that registry. QCDR's approved by CMS include PINNACLE, CathPCI, and the Society of Thoracic Surgeons National Database.</p> <ul style="list-style-type: none"> <li>• QPP = Quality Payment Program. Medicare Part B payment program that incentivizes value over volume. Comprised of the Merit-based Incentive Payment System (MIPS) and the Advanced Payment Model.</li> <li>• Registry = Clinical data registries provide benchmarks and allow tracking of metrics over time. Not all commercial registries used to submit quality data to CMS can provide reports that can be used for QI purposes. However, the American College of Cardiology's National Cardiovascular Data Registry (NCDR) registries, including PINNACLE, CathPCI, and the ACTION Registry, and the American Heart Association's Get With The Guidelines-CAD registry can generate reports that can be used for QI projects.</li> </ul>
<p><b>Background and Purpose</b></p>	<p>As emphasis for provider and hospital reimbursement shifts to value- rather than volume-based payment, the time is right for CR programs to work with their Medical Directors to become actively involved with their own or referring facilities' QI and clinical effectiveness departments to assure that appropriate patients are referred for CR services. CR participation clearly impacts many of the outcomes measured within episode-based payment, and inclusion of the referral to CR performance measures in several registries facilitates benchmarking and tracking. In addition, credentialing bodies and payers are now stressing performance improvement activity by providers, which presents an opportunity for CR programs and their Medical Directors to work with other providers to develop systems and processes to close the gap in CR referral.</p> <p>Multiple studies have shown that QI projects that initiate structured referral processes are effective in increasing CR referral rates. Processes to increase enrollment in CR include programming EMRs to facilitate referral and enrollment, as well as interventions that help patients understand the impact of CR on their health, such as peer endorsement and support. In addition to working with referring practitioners and other hospital staff, CR programs can also develop QI projects for their programs that translate referrals into participation.</p>
<p><b>Relevant Metric(s)</b></p>	<p>CR referral performance measures define how to determine the percent of eligible patients who are referred to CR.</p> <ul style="list-style-type: none"> <li>• <b>PM-1 Cardiac Rehabilitation Patient Referral From an Inpatient Setting:</b> Percentage of patients, age ≥18y, hospitalized with a qualifying event/diagnosis for CR in the previous 12 mo including: an MI, CSA, or who, during</li> </ul>

	<p>hospitalization, have undergone CABG surgery, PCI, cardiac valve repair/replacement, or heart transplantation, are to be referred to an outpatient CR program.</p> <ul style="list-style-type: none"> <li>• <b>PM-2 Exercise Training Referral for HFrEF From an Inpatient Setting:</b> Percentage of patients, age ≥18y, hospitalized with a primary diagnosis of HFrEF in the previous 12 mo, who are referred for outpatient exercise training (or regular physical activity), typically delivered in the setting of an outpatient CR program.</li> <li>• <b>PM-3 Cardiac Rehabilitation Patient Referral From an Outpatient Setting:</b> Percentage of patients, age ≥18y, evaluated in an outpatient setting, who within the previous 12 mo have had a qualifying event/diagnosis for CR including: MI, CABG surgery, a PCI, cardiac valve surgery, or heart transplantation, or who have CSA and have not already participated in a CR program for the qualifying event/diagnosis are to be referred to such a program.</li> <li>• <b>PM-4 Exercise Training Referral for HFrEF From an Outpatient Setting:</b> Percentage of patients, age ≥18y, evaluated in an outpatient setting who within the previous 12 mo, have had a new HFrEF event or exacerbation, and have not participated in an exercise training program, such as provided in CR programs, for the qualifying event/diagnosis, are to be referred for exercise training.</li> </ul> <p>Enrollment of patients referred to CR requires that the CR program knows which patients have been referred by a facility and/or provider. The CR program must develop a system to track the rate of enrollment from those referred.</p>
<p><b>Process Description/ Processes Impacted</b></p>	<p>1. Working with Referring Hospitals to Increase CR Referral</p> <ul style="list-style-type: none"> <li>• Identify the individuals at your facility and/or referring facilities who are involved in reporting performance improvement data to payers. In general, this is a QI, Clinical Effectiveness and Quality, or Utilization Review department, which includes nurses, clinical information technology specialists, and has input from physicians. There may also be staff in other clinical departments assigned to extract and track data specific to cardiology and cardiovascular PMs and to submit that data to clinical data registries and/or to CMS directly. Your program's Medical Director will most likely know which department(s) you should contact first.</li> <li>• Determine if your facility or referring facility participates in a clinical data registry that includes a CR referral PM. These registries include PINNACLE, the ACTION Registry, GWTG-</li> </ul>

	<p>CAD (as of 2018), Cath PCI, and the Society for Thoracic Surgery National Database.</p> <ul style="list-style-type: none"> <li>• If your facility participates one of these clinical data registries, then identify and talk with the person who enters the CR referral data into the registry to find out how they determine if a referral was made.</li> <li>• Identify the key people who can help you develop a QI project to improve the referral rate. Consider the following questions: Where does your facility's referral rate fall, compared to benchmarks? How does that compare to actual enrollment in CR? Is there room to improve the process so that the CR program receives sufficient information to help the patient enroll and so that the patient understands the importance of participation?</li> <li>• Develop a mechanism to track enrollment of referred patients to determine whether the new processes also impact the ultimate desired outcome, which is participation in CR, and/or whether you need to make changes in your enrollment process and program to encourage patients to enroll. You may need to partner with other CR programs in your area to do this. Consider developing a regional or state affiliate project, using a HIPPA compliant database.</li> <li>• If your facility does not participate in a clinical data registry, find out what system is used to track cardiovascular PMs. Things to consider: Does that system already track CR referral? If not, why not? How can that be rectified? Who might be able to help? What can you do to help the facility track CR referral?</li> <li>• Find a champion within the cardiology and/or cardiovascular surgical department to help you determine how to track and report the CR referral metric and then to develop a QI project to increase CR referrals. In addition to positively impacting patient outcomes (e.g. satisfaction, mortality, functional capacity, depression), a well-structured QI project is attractive to The Joint Commission surveyors. Collect baseline referral and enrollment rates, implement changes, and track improvement over time.</li> </ul> <p>2. Working with Physician Practices to Improve CR Referral:</p> <ul style="list-style-type: none"> <li>• Identify how PMs are submitted by referring providers and who chooses the measures that are submitted to CMS. This will most likely be a different department or at a different site from the QI office if the provider is not a hospital employee. In general, providers are expected to submit performance measure data to CMS at the end of each calendar year to reflect their performance across several domains, one of which is care coordination, and the referral to CR measures are in the care coordination domain. EMRs can be programmed to incorporate data elements that reflect CR referrals. If you can</li> </ul>
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	<p>help providers do well with the referral to CR PMs results that they submit to CMS, it will benefit the provider, your program, and patients.</p> <ul style="list-style-type: none"> <li>• Find a champion within the physician practice to promote use of the CR referral measure. Work with that champion to convince the practice manager and other members of the practice group that using the referral to CR measure can be easy and meaningful to their patients.</li> <li>• Work with the champion, the information technologist, and the practice manager to develop processes to collect accurate data and to assure that referrals translate to enrollment and participation. Your goal is to make referral to CR a very easy process, for that process to include a way for the CR program to have enough information for the patient to be contacted and enrolled, and for that referral to generate a quality data code that can be reported to CMS.</li> </ul> <p>3. Tracking Results, Continuous Quality Improvement</p> <ul style="list-style-type: none"> <li>• Key principles to designing a QI project include: collect accurate baseline CR referral data, (ideally already collected or retrieved from historical data), change only one system or process at a time, and assess the effect of that change by monitoring the CR referral data over time.</li> <li>• Develop a system within your CR program (and collaboratively with other CR programs) to track whether referred patients enroll and participate in CR sessions.</li> <li>• Determine the appropriate interval of time to track data. Depending on the size of your facility, you may need to track data quarterly, semi-annually, or annually, rather than monthly, to determine if your intervention is effective. Consider using the AACVPR Cardiac Rehabilitation Registry to track enrollment, completion, and other clinical outcomes.</li> <li>• Use the CR referral measure, including the definition of referral and exclusions, throughout the project to assure that changes in the way that the information is collected are not skewing the results.</li> </ul>
<p><b>Key People/ Departments to Engage</b></p>	<ul style="list-style-type: none"> <li>• CR Program’s Medical Director</li> <li>• QI/Clinical Effectiveness and Quality Department</li> <li>• Medical Staff Administrator</li> <li>• Cardiology QI Nurses</li> <li>• Referring Providers</li> <li>• Practice Managers</li> <li>• Clinical Information Technology</li> </ul>

<b>Data Sources</b>	CR referral metrics from qualified clinical data registry or hospital database.
<b>Cost Concerns</b>	This is not costly to the CR program, beyond the time it takes to understand the facility's and referring provider's systems to report quality data and to connect with the appropriate people within QI and clinical information technology departments to develop systems to extract data related to CR referral. However, if significant programming is needed within the EMR, then this may require additional resources. Engaging your program's Medical Director could help connect you to the appropriate people at your facility.
<b>Timeline</b>	This will most likely be a 3 to 4 year project. The first year should be dedicated to understanding the issues, adapting systems to collect accurate CR referral data, and designing an intervention to increase referrals. In the second and third year, the intervention should be implemented. During years 3 and 4, referral to CR data should be tracked.
<b>Supporting Material</b>	<ul style="list-style-type: none"> <li>• AACVPR Cardiac Rehabilitation Performance Measures Toolkit (2010): <a href="https://www.aacvpr.org/Portals/0/Resources/CR%20PM/CR%20PM%20toolkit%202010.pdf">https://www.aacvpr.org/Portals/0/Resources/CR%20PM/CR%20PM%20toolkit%202010.pdf</a></li> <li>• For more information about MIPS: <a href="https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html">https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-MIPS-and-APMs.html</a></li> <li>• For more information about ACC, AHA, and STS Registries: <ul style="list-style-type: none"> <li>○ <a href="http://cvquality.acc.org/ncdr-home.aspx">http://cvquality.acc.org/ncdr-home.aspx</a></li> <li>○ <a href="http://www.heart.org/HEARTORG/Professional/GetWithTheGuidelines/GetWithTheGuidelines-CAD/Get-With-The-Guidelines-CAD_UCM_494972_SubHomePage.jsp">http://www.heart.org/HEARTORG/Professional/GetWithTheGuidelines/GetWithTheGuidelines-CAD/Get-With-The-Guidelines-CAD_UCM_494972_SubHomePage.jsp</a></li> <li>○ <a href="http://www.sts.org/national-database">http://www.sts.org/national-database</a></li> </ul> </li> </ul>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Thomas RJ, Balady G, Banka G, et al. 2018 ACC/AHA clinical performance and quality measure for cardiac rehabilitation: a report of the American College of Cardiology/American Heart Association Task Force on Performance Measure. <i>J Am Coll Cardiol</i>. 2018, epub ahead of print.</li> <li>2. Balady GJ, Ades PA, Bittner VA, et al. Referral, enrollment, and delivery of cardiac rehabilitation/secondary prevention programs at clinical centers and beyond: a presidential advisory from the American Heart Association. <i>Circulation</i>. 2011 Dec 20;124(25):2951-60.</li> </ol>

	<ol style="list-style-type: none"> <li>3. King M, Bittner V, Josephson R, et al. Medical director responsibilities for outpatient cardiac rehabilitation/secondary prevention programs: 2012 update: a statement for health care professionals from the American Association for Cardiovascular and Pulmonary Rehabilitation and the American Heart Association. <i>Circulation</i> 2012;126:2535-43</li> <li>4. Beatty AL, Li S, Thomas L, et al. <i>J Am Coll Cardiol</i>. Trends in referral to cardiac rehabilitation after myocardial infarction: data from the National Cardiovascular Data Registry 2007 to 2012. 2014;63(23):2582-3</li> <li>5. Grace SL, Russell KL, Reid RD, et al. Cardiac Rehabilitation Care Continuity Through Automatic Referral Evaluation (CRCARE) Investigators. Effect of cardiac rehabilitation referral strategies on utilization rates: a prospective, controlled study. <i>Arch Intern Med</i>. 2011;171:235-41</li> <li>6. Pack QR, Mansour M, Barboza JS, et al. An early appointment to outpatient cardiac rehabilitation at hospital discharge improves attendance at orientation: a randomized, single-blind, controlled trial. <i>Circulation</i>. 2013;127:349-55</li> </ol>
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