

FACTS

Cardiac Rehabilitation

Putting More Patients on the Road to Recovery

OVERVIEW

Each year, roughly 935,000 Americans will have a coronary event, and more than 30% will have a second and potentially fatal one.^{1,2} However, there is hope. Cardiac rehabilitation (CR) reduces the risk of a future cardiac event by stabilizing, slowing, or even reversing the progression of cardiovascular disease (CVD).³ Patients with other cardiovascular diseases, such as valve repair and heart failure also benefit from a CR program that includes exercise rehabilitation.^{4,5}

Yet, despite its clear and tangible benefits, CR remains woefully underutilized, particularly among women and minorities.^{6,7,8} The statistics present a worrisome story. Fewer than 20% of all eligible patients ever participate in a CR program.^{9,10} Even worse, the utilization rate for eligible Medicare beneficiaries is a meager 12%.¹¹ This stands in strict contrast to the facts. Clinical research has shown cardiac rehabilitation reduces mortality by over 50% compared with those patients who do not participate. Participation in CR can also reduce the likelihood of hospital readmissions (for all causes) by 25% and the use of medical resources.^{12,13}

So, why aren't patients and their physicians leaping at this life-saving/life-changing opportunity? Reasons for low participation in CR include: the lack of a referral or a strong endorsement from the patient's physician; limited or no health insurance coverage; conflicts with work or home responsibilities; and the lack of program availability and access.^{9,14} New delivery models for health care offer opportunities to address patient barriers and lower costs to close the treatment gap between the benefits obtained from CR and participation in these programs.¹⁵

WHAT IS CARDIAC REHABILITATION?

Cardiac rehabilitation is a medically supervised program consisting of exercise training, education on heart-healthy living, counseling to reduce stress, and helping patients return to an active lifestyle and recover more quickly. CR offers a multifaceted and highly individualized

approach to optimize the overall physical, mental, and social functioning of people with heart-related problems. It is recommended for both the inpatient and outpatient settings for the following conditions:^{16,17}

- Recent myocardial infarction (heart attack)
- Percutaneous coronary intervention (PCI)
- Coronary artery bypass grafting (CABG)
- Chronic stable angina
- Stable, chronic heart failure
- Cardiac transplantation
- Valvular heart disease

Medicare provides reimbursement for all the recommended conditions, although coverage for heart failure (HF) is limited to patients with compromised ejection fraction (about half of the HF patient population).⁹ CR sessions are limited to a maximum of two one-hour sessions per-day up to 36 sessions furnished over a period of up to 36 weeks with the option for an additional 36 sessions. Reimbursement guidelines require CR programs to include five components:

- Physician-prescribed exercise
- Cardiac risk factor modification (education, counseling, and behavioral intervention)
- Psychosocial assessment
- Outcomes assessment
- Individualized treatment plan

HEALTH BENEFITS

Cardiac rehabilitation improves the health and recovery of those who suffer from CVD. The benefits of CR include:

- A 25% reduction in all-cause mortality rates.¹²
- Decreased mortality at up to 5 years post participation.¹¹
- Reduction in 10 year all-cause mortality following CABG.¹⁸
- Reduced symptoms (angina, dyspnea, fatigue).¹⁹
- Reduction in nonfatal recurrent myocardial infarction over median follow-up of 12 months.²⁰ Improved adherence with preventive medication.^{11,21}
- Increased exercise performance.²²

- Improved health factors like lipids and blood pressure.^{19,23}
- Increased knowledge about cardiac disease and its management.²⁴
- Enhanced ability to perform daily living activities.¹⁹
- Improved health-related quality of life.¹⁹
- Improved psychosocial symptoms.²⁵
- Reduced hospitalizations and use of medical resources.¹⁹
- Increased ability to return to work or engage in leisure activities.²⁶

FINANCIAL BENEFITS

Better health outcomes translate into reduced hospitalizations and use of medical resources.^{12,13,19} A study presented at the Canadian Cardiovascular Congress found that CR resulted in a 31% reduction in hospital readmissions and a 26% drop in cardiovascular mortality – reducing costs associated with hospital admissions from heart attack by \$8.5 million a year for a 7% return on investment. The authors projected that if physician costs were included, the benefits would have been 15%-20% greater.²⁷ A recent study conducted in Minnesota found that CR participation was associated with a 25% reduction in long-term readmission risk.¹² Another study in Vermont found that hospitalization costs over the follow-up period for cardiac admissions were roughly \$900 less for patients who completed a CR program.²⁸

ENROLLMENT IS LIMITED

Older and sicker patients, women, minority populations, and patients with lower socioeconomic status or levels of education, are less likely to be referred to CR and unfortunately, are less likely to take that first critical step to enroll after referral.^{7,8,10,29} This is of enormous concern because women and minorities are far more likely to die within 5 years after a first heart attack compared with white male patients.³

More research and piloting of innovative approaches are needed to identify delivery methods that will address and remove these barriers to CR enrollment and utilization.

BARRIERS TO UTILIZATION^{2,30,31}

- Lack of referral or strong encouragement to participate from the patient's physician
- Limited follow-up or facilitation of enrollment after referral
- Limited, or no health care coverage (cost)
- Work or home responsibilities
- Hours of operation that conflict with work demands and lack of facility capacity
- Scarcity of programs in rural areas or low income communities
- Distance to facility from patient's home
- Access to public transportation or parking issues
- Lack of perceived need for rehabilitation
- Male gender-dominated programs and little racial diversity among staff
- Language problems and cultural beliefs

THE ASSOCIATION ADVOCATES

The American Heart Association is committed to public policies that will reduce the treatment gap for cardiac rehabilitation, with a specific focus on the most underserved populations: women, minorities, and low-income individuals. These policies include:

- Support S. 488, legislation that would allow physician assistants, nurse practitioners and clinical nurse specialists to directly *supervise* patients in cardiac and pulmonary rehabilitation programs on a day-to-day basis under Medicare.
- Creation and dissemination of information on the benefits of CR to physicians and health plans to enhance referral, follow-up, and reduce costs.
- Support for alternative models to traditional CR that address barriers associated with transportation and responsibilities at home or work.
- Monitoring the inclusion of meaningful coverage for CR in state essential health benefit packages.

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