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Northwest Utilization Review

UR 12.1: Cardiac Rehabilitation Medical Necessity Criteria

Department: KPNW Utilization Review
Applies to: KPNW Region
Review Responsibility: UROC
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Medical necessity criteria and policy are applied only after member eligibility and benefit coverage is determined. Questions concerning member eligibility and benefit coverage need to be directed to Membership Services.

Requests from KP clinicians for Cardiac Rehabilitation Programs and Intensive Cardiac Rehabilitation Programs are submitted through the HealthConnect referral process for non-Kaiser services. Select patients, per cardiology discretion, might be offered *virtual* cardiac rehab but can always opt for center-based rehab instead.

DEFINITIONS

Cardiac Rehabilitation is a coordinated sum of interventions required to ensure the best physical, psychological, and social conditions so that patients with chronic or post acute cardiovascular disease may, by their own efforts, preserve or resume optimal functioning in society and, through improved health behaviors, slow or reverse progression of disease. It is a complex, individualized program intended to modify cardiac risk factors through prescribed exercise, education, counseling, and behavioral intervention.

POLICY AND CRITERIA

MEDICAL NECESSITY CRITERIA

Coverage guidance: Cardiac rehabilitation may be excluded from coverage. Check CM for exclusions or limitations.

Source	Policy
For Medicare Members	
CMS Coverage Manuals	None
National Coverage Determinations (NCD)	NCD 20.10.1 "Cardiac Rehabilitation Programs for Chronic Heart Failure"
Local Coverage Determinations (LCD)	None
Local Coverage Article	None
Kaiser Permanente Medical Policy for Medicare Members	UR 12.1 does not apply
For Medicaid Members	
OR Medicaid	UR 12.1 does not apply
WA Medicaid	UR 12.1 does not apply

Commercial and Self-Funded Members	
OR Commercial	UR 12.1 applies
WA Commercial	UR 12.1 applies
Self-funded plans	UR 12.1 applies

Members will have been diagnosed with ONE of the following cardiac diagnoses or had ONE of the following cardiac procedures:

a. coronary artery bypass surgery
b. chronic heart failure (New York Heart Association class I to III, see definitions in *References* below)
c. acute myocardial infarction (MI) within the preceding 12 months
d. current stable angina pectoris
e. heart valve repair or replacement
f. percutaneous transluminal coronary angioplasty (PTCA) or coronary stenting
g. heart or heart-lung transplant
h. left ventricular assist device (LVAD)

OTHER REQUIREMENTS

Cardiac Rehabilitation and Intensive Cardiac Rehabilitation Programs must include the following components:

a. Physician-prescribed exercise each day cardiac rehabilitation items and services are furnished;
b. Cardiac risk factor modification, including education, counseling, and behavioral intervention at least once during the program, tailored to patients' individual needs;
c. Psychosocial assessment;
d. Outcomes assessment; and
e. An individualized treatment plan detailing how components are utilized for each patient.

CONTRAINDICATIONS

Cardiac rehabilitation should not be used when the following conditions exist:

a. unstable angina defined as chest, neck, intrascapular or bilateral or unilateral arm discomfort felt to represent angina that occurs at rest or awakens a patient from sleep, or that is occurring on a more frequent basis than the patient's baseline frequency.
b. uncontrolled hypertension:
    - resting systolic blood pressure $\geq$200 mm Hg
    - resting diastolic blood pressure $\geq$110 mm Hg
c. symptomatic aortic stenosis- severe aortic stenosis w chest pain (angina) or tightness with activity; feeling faint or dizzy or fainting with activity; symptoms of congestive heart failure.
d. acute systemic illness or fever
e. uncontrolled atrial arrhythmia defined as a ventricular response over 130 beats per minute at rest, lasting more than 36 hours, within the last 30 days.
f. uncontrolled ventricular arrhythmia defined as 1) a ventricular rhythm associated with symptoms of chest pain, dizziness, light-headedness, presyncope, syncope or shortness of breath, within the last 30

days OR 2) a ventricular rhythm detected by an automatic implantable cardioverter-defibrillator (AICD) that required anti-tachycardia pacing (ATP) or AICD discharge, within the last 30 days.

The exception is if patients undergoing angiogram or PCI who have ventricular arrhythmias at the time of the intervention; if no other ventricular rhythms, then patient may enroll in cardiac rehab.

g. uncompensated heart failure- a sudden worsening of the signs and symptoms of heart failure, which typically includes difficulty breathing (dyspnea), leg or feet swelling, and fatigue.
h. third degree atrioventricular block (without a functioning pacemaker)
i. active pericarditis or myocarditis

RATIONALE

EVIDENCE BASIS

Several recent Cochrane systematic reviews have assessed the evidence for the use of exercise-based cardiac rehabilitation for adult patients, including: following heart valve surgery, in heart transplant recipients, in those with stable angina, in those with heart failure, and in those with an implantable cardioverter defibrillator. Overall, the findings of these reviews are mixed and summarized individually below:

Heart Failure

A 2024 review to determine the effects of exercise-based cardiac rehabilitation in people with heart failure (k=60 trials) reports that compared to no exercise control conditions, participation in cardiac rehabilitation likely reduces the risk of all-cause hospital admission and heart failure-related hospital admissions and may result in improvements in health-related quality of life. This review did not find evidence of a difference in all-cause mortality in people with heart failure who participated in exercise-based cardiac rehabilitation compared to those who participated in no-exercise control conditions.[1]

Stable Angina

A 2018 review to assess the effects of exercise-based cardiac rehabilitation in adults with stable angina (k=7 trials) determined that the effects of this therapy compared to control were uncertain for mortality, morbidity, cardiovascular hospital admissions, adverse events, and health-related quality of life. This is due to the small number of available trials and the overall low quality of the evidence for these outcomes.[2] The report indicates that exercise-based cardiac rehabilitation may result in a small increase in exercise capacity compared to usual care.[2]

Heart Valve Surgery

A 2021 review to assess the benefits and harms of exercise-based cardiac rehabilitation compared to no exercise training in adults following heart valve surgery or repair (k=6 trials) reports that the impact of exercise-based cardiac rehabilitation on mortality, hospitalization, and health-related quality of life is unclear in this population.[3] The overall body of evidence is of very low quality and available trials are heterogenous in terms of the outcomes reported, outcome measurement, and length of follow-up, making it difficult to draw firm conclusions about the effect of the intervention.[3]

Heart Transplant

A 2017 review to determine the effectiveness and safety of exercise-based cardiac rehabilitation for people after heart transplantation (k=10 RCTs) reports that exercise-based cardiac rehabilitation increased exercise capacity in this population compared to no exercise.[4] The review reports inconclusive results for health-related quality of life in the short-term (median 12 weeks of follow-up) following interventions, due primarily to the variation in outcomes and methods of reporting across studies examining HRQoL.[4]

Implantable Cardioverter Defibrillator

A 2019 review to assess the benefits and harms of exercise-based cardiac rehabilitation programs compared to control in people with an implantable cardioverter defibrillator (ICD) (k=8 RCTS) reports that exercise capacity was higher among those in exercised-based cardiac rehabilitation programs compared to those in control conditions.[5] The review indicates a lack of evidence to adequately assess the impact of exercise-based cardiac rehabilitation on mortality, serious adverse events, or health-related quality of life.[5]

Implantable Ventricular Assist Devices

A 2018 review to determine the benefits and harms of exercise-based cardiac rehabilitation programs for people with implantable ventricular assist devices (VADs) (k=2) reports improvements in scored assessments of quality of life in participants in exercise-based cardiac rehabilitation groups compared to usual care groups.[6] The review notes a lack of evidence for the effectiveness of exercised-based cardiac rehabilitation because of small sample sizes in the included studies, wide confidence intervals, high risk of performance bias, and young age of participants. Additionally, it was not possible to determine the effect of exercise-based cardiac rehabilitation on mortality, rehospitalization, heart transplantation, or cost as these outcomes were not reported in the included studies.[6]

REFERENCES

New York Heart Association class I to IV definitions:

- Class I - No symptoms and no limitation in ordinary physical activity, e.g. shortness of breath when walking, climbing stairs etc.
- Class II - Mild symptoms (mild shortness of breath and/or angina) and slight limitation during ordinary activity.
- Class III - Marked limitation in activity due to symptoms, even during less-than-ordinary activity, e.g. walking short distances (20—100 m). Comfortable only at rest.
- Class IV - Severe limitations. Experiences symptoms even while at rest. Mostly bedbound patients.

1. Molloy C, Long L, Mordi IR, et al. Exercise-based cardiac rehabilitation for adults with heart failure. *Cochrane Database of Systematic Reviews*. 2024;(3)doi:10.1002/14651858.CD003331.pub6
2. Long L, Anderson L, Dewhirst AM, et al. Exercise-based cardiac rehabilitation for adults with stable angina. *Cochrane Database of Systematic Reviews*. 2018;(2)doi:10.1002/14651858.CD012786.pub2
3. Abraham LN, Sibilitz KL, Berg SK, et al. Exercise-based cardiac rehabilitation for adults after heart valve surgery. *Cochrane Database of Systematic Reviews*. 2021;(5)doi:10.1002/14651858.CD010876.pub3
4. Anderson L, Nguyen TT, Dall CH, Burgess L, Bridges C, Taylor RS. Exercise-based cardiac rehabilitation in heart transplant recipients. *Cochrane Database of Systematic Reviews*. 2017;(4)doi:10.1002/14651858.CD012264.pub2

5. Nielsen KM, Zwisler AD, Taylor RS, et al. Exercise-based cardiac rehabilitation for adult patients with an implantable cardioverter defibrillator. *Cochrane Database of Systematic Reviews*. 2019;(2)doi:10.1002/14651858.CD011828.pub2
6. Yamamoto S, Hotta K, Ota E, Matsunaga A, Mori R. Exercise-based cardiac rehabilitation for people with implantable ventricular assist devices. *Cochrane Database of Systematic Reviews*. 2018;(9)doi:10.1002/14651858.CD012222.pub2