JOHNS HOPKINS HEALTHCARE

Medical Policy: Cardiac Rehabilitation
Department: Health Services
Lines of Business: EHP, USFHP, PPMCO, ADVANTAGE MD

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ACTION:
☐ New Policy
☒ Revising Policy Number: CMS03.02
☐ Superseding Policy Number
☐ Archiving Policy Number
☐ Retiring Policy Number

Effective Date: 02/27/2002
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Johns Hopkins HealthCare (JHHC) provides a full spectrum of health care products and services for Employer Health Programs, Priority Partners, and US Family Health Plan. Each line of business possesses its own unique contract and guidelines which, for benefit and payment purposes, should be consulted to know what benefits are available for reimbursement.

Specific contract benefits, guidelines or policies supersede the information outlined in this policy.

POLICY:


For Advantage MD, see Medicare Coverage Database:
National Coverage Determination (NCD) for Cardiac Rehabilitation Programs for Chronic Heart Failure (20.10.1)

I. When benefits are provided under the member’s contract, Johns Hopkins Health Care (JHHC) considers Phase II Cardiac Rehabilitation medically necessary for select members when it is initially prescribed by a physician and ANY of the following have occurred within the preceding 12 months:
   A. Acute myocardial infarction (MI)
   B. Coronary artery bypass surgery (CABG)
   C. Percutaneous coronary vessel remodeling (i.e. angioplasty, atherectomy, stenting)
   D. Valve replacement or repair
   E. Heart Transplantation or Heart-Lung Transplantation
   F. Sustained ventricular tachycardia or fibrillation
   G. Survivors of sudden cardiac death
   H. Diagnosis of inoperable or difficult to manage coronary artery disease with symptoms of angina pectoris, which prevents the patient from functioning adequately to meet domestic or occupational needs (particularly with modifiable coronary risk factors or poor exercise tolerance).
   I. Placement of a ventricular assist device
J. Major pulmonary surgery; Great vessel surgery, or MAZE arrhythmia surgery
K. Class II, III or IV congestive heart failure (CHF), inclusive of heart failure with reduced ejection fraction (<50% as well as those with preserved ejection fraction (≥50%).
L. Chronic stable angina, AND;
   a. A formal exercise stress test has been completed following the qualifying cardiac event and prior to initiation of the rehabilitation program.

II. The frequency and duration of cardiac rehabilitation will be a maximum of 36 sessions over a 12 week time period.

III. When benefits are provided under the member’s contract, JHHC considers additional cardiac rehabilitation services considered medically necessary based on the above listed criteria when an individual has a repeat occurrence of any of the covered conditions.

IV. Criteria for determining that a member is able to exit a cardiac rehabilitation program include the following:
   A. Patient has achieved a stable level of exercise tolerance without ischemia or dysrhythmia, AND;
   B. Symptoms of angina or dyspnea are stable at the patient’s maximum exercise level, AND;
   C. Patient’s resting blood pressure and heart rate are within normal limits.

V. Phase III and IV programs are not considered medically necessary because they are self-directed and do not require medical supervision.

BACKGROUND:
Cardiac rehabilitation (CR) is a professionally supervised program to help people recover from heart attacks, heart surgery, and percutaneous coronary intervention (PCI) procedures such as stenting and angioplasty. CR helps patients with heart disease enhance their health and physical abilities. While exercise is an important component, education and counseling are additional features that characterize CR.

Cardiac rehabilitation is considered as existing in four stages. Phase 1 (Inpatient Rehabilitation) occurs in the hospital. The goal of Phase 1 cardiac rehabilitation is to ensure patients are physically and mentally able to be discharged. Phase 2 (Outpatient Rehabilitation) occurs in an outpatient setting and involves electrocardiographic (ECG) monitoring. The purpose of Phase 2 rehabilitation is to establish exercise practices for patients that are compatible with their cardiac health and that will help them continue to strengthen their cardiac health beyond supervised rehabilitation. Most insurance benefit coverage policies apply to Phase 2 cardiac rehabilitation. Phase 3 cardiac rehabilitation occurs in an outpatient facility for up to 12 months after a cardiac
event. ECG monitoring is not typical during this rehabilitation stage and supervision is less stringent than during Phase 2. Phase 4 is a long-term change in lifestyle that occurs following participation in the earlier stages of cardiac rehabilitation. Follow-up visits may occur during this phase to ensure continued adherence to the program that was established earlier in the rehabilitation process.

Several studies of the value of cardiac rehabilitation to patients who have experienced a cardiac event have been published. Participants in CR have been found to have better outcomes than non-participants. Specifically, a reduction in mortality and hospitalization has been reported (Ades et al., 2013). A randomized, controlled trial examining the impact of frequency of cardiac rehabilitation on efficacy and cost has reported there is no significant difference between programs that consist of 33 sessions distributed over 3 months and programs that consist of 33 sessions distributed over 12 months (Reid et al., 2005). A population-based study of the effects of phase II and phase III cardiac rehabilitation has been conducted in Austria using a nationwide registry (Niebauer et al., 2014). This study reported that participation in cardiac outpatient rehabilitation is effective in improving cardiac risk factors. Blood pressure, LDL levels, BMI, and waist circumference were found to decrease between the beginning and end of outpatient CR. The utility of CR for improving outcomes after a non-cardiac event, such as stroke, is an area of current investigation (Prior et al., 2011). The cost of providing CR in a hospital setting is comparable to the cost of home-based CR, and both rehabilitation settings result in the same level of benefit to participants (Taylor et al., 2007).

While traditional CR relies heavily on exercise as the mechanism for change, Intensive Outpatient Cardiac Rehabilitation programs strive to achieve a broader psychological and behavioral change. Dean Ornish, MD has developed an intensive outpatient cardiac treatment program that has been demonstrated to effectively improve body mass index (BMI), triglycerides, low density lipoprotein cholesterol, total cholesterol, hemoglobin A1c, systolic blood pressure, diastolic blood pressure, depression, hostility, exercise, and functional capacity (Silberman et al., 2010). Importantly, the changes induced by the Ornish program have been found to exist beyond 1 year following program completion. A study conducted in collaboration with Mutual of Omaha demonstrated that participation in an intensive cardiac rehabilitation program resulted in 77% of patients who were eligible for revascularization safely avoiding surgery (Ornish, 1998).

Heart disease affects many individuals who are able to continue living productively after a cardiac event, and successful rehabilitation is important for patients to return to an active lifestyle. Effective cardiac rehabilitation helps patients recover from a cardiac event and learn to properly manage their heart condition while engaging in activities of daily life. Participation in CR can yield many benefits by increasing one’s health, preventing future illness, and promoting healthy contributions to society.
APPENDIX:

I. Definitions

For the purposes of this policy, the following definitions of cardiac rehabilitation apply:

*Phase I – Inpatient Rehabilitation*: The objectives in phase I (the first 14 to 21 postoperative or post-event days) are intended to provide surveillance for optimal patient management. In addition to providing a structured progressive ambulation program, specially trained healthcare personnel teach the patient how to recognize cardiac symptoms and respond appropriately; explain the doses, effects, and side effects of the medications; educate patients on stress management; and discuss cardiovascular disease risk factors.

*Phase II – Outpatient Rehabilitation*: A symptom-limited exercise test is administered, establishing the patient’s MET (metabolic equivalents) capacity and identifying high-risk characteristics that require further evaluation or intervention. Risk stratification is used to identify patients at risk for death or reinfarction and to provide guidelines for the rehabilitative process. Patients may meet with a physical therapist and a dietician during this phase of rehabilitation. Rehabilitation is supervised by specially trained personnel. Most exercise programs consist of 3 sessions per week for 4 to 12 weeks for approximately an hour, with continuous ECG monitoring. The patient warms up for 10 to 15 minutes with various callisthenic exercises, then performs exercises using the following modes: stationary bicycle ergometry (with leg only, arm only, or arm-leg combinations), treadmill walking, arm ergometry, and rowing. These exercises are followed by a 10- to 15-minute cool-down period.

*Phase III – Long-Term Rehabilitation*: The patient continues exercise and modified behaviors related to risk factors at home or in a community-based facility. The patient performs an adequate warm-up session before exercises, which may include walking, bicycling, jogging, swimming, calisthenics, weight training, and endurance sports, depending upon the maximum exercise capacity and the personal preferences of the patient. Group support and counseling are critical for ongoing reinforcement.

CODING INFORMATION:

*CPT Copyright 2018 American Medical Association. All rights reserved. CPT is a registered trademark of the American Medical Association.*

Note: The following CPT/HCPCS codes are included below for informational purposes. Inclusion or exclusion of a CPT/HCPCS code(s) below does not signify or imply member coverage or provider reimbursement. The member's specific benefit plan determines coverage and referral requirements. All inpatient admissions require pre-authorization.
**Employer Health Programs (EHP)** refer to specific Summary Plan Description (SPD). If there is no criteria in the SPD, apply the Medical Policy criteria.

**Priority Partners (PPMCO)** refer to COMAR guidelines and PPMCO SPD then apply the Medical Policy criteria.

**US Family Health Plan (USFHP), TRICARE Medical Policy supersedes JHHC Medical Policy. If there is no Policy in TRICARE, apply the Medical Policy Criteria.**

**Advantage MD, LCD and NCD Medical Policy supersedes JHHC Medical Policy. If there is no LCD or NCD, apply the Medical Policy Criteria.**

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<tr>
<th>CPT ® CODES</th>
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<tr>
<td>93797</td>
<td>Physician or other qualified health care professional services for outpatient cardiac rehabilitation; without continuous ECG monitoring (per session)</td>
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<tr>
<td>93798</td>
<td>Physician or other qualified health care professional services for outpatient cardiac rehabilitation; with continuous ECG monitoring (per session)</td>
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<td>G0422</td>
<td>Intensive cardiac rehabilitation; with or without continuous ECG monitoring with exercise, per session</td>
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<tr>
<td>G0423</td>
<td>Intensive cardiac rehabilitation; with or without continuous ECG monitoring; without exercise, per session</td>
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<tr>
<td>S9472</td>
<td>Cardiac rehabilitation program, non-physician provider, per diem</td>
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<th>ICD10 CODES</th>
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<td>I02.0</td>
<td>Rheumatic chorea with heart involvement</td>
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<td>I05.0-108.9</td>
<td>Rheumatic mitral, aortic, tricuspid, and multiple valve diseases</td>
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<td>I09.81</td>
<td>Rheumatic heart failure</td>
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<td>I11.0</td>
<td>Hypertensive heart disease with heart failure</td>
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<td>I13.0</td>
<td>Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease</td>
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<td>I13.2</td>
<td>Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease</td>
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<td>I21.01-I25.9</td>
<td>Ischemic heart disease</td>
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<td>I50.1-I50.9</td>
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<tr>
<td>I97.0, 197.110, 197.130, 197.190</td>
<td>Post procedural cardiac functional disturbances</td>
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**Z94.1** Heart transplant status  
**Z94.2** Lung transplant status  
**Z95.1** Presence of aortocoronary bypass graft  
**Z95.2** Presence of prosthetic heart valve  
**Z95.3** Presence of xenogenic heart valve  
**Z95.4** Presence of other heart-valve replacement  
**Z95.811** Presence of heart assist device  
**Z95.812** Presence of fully implantable artificial heart  
**Z98.61** Coronary angioplasty status  
**Z98.89** Other specified post procedural states

**REFERENCE STATEMENT:**

Analyses of the scientific and clinical references cited below were conducted and utilized by the Johns Hopkins HealthCare (JHHC) Medical Policy Team during the development and implementation of this medical policy. Per NCQA standards, the Medical Policy Team will continue to monitor and review any newly published clinical evidence and adjust the references below accordingly if deemed necessary.
REFERENCES:


