Medical Policy

Blue Cross Blue Shield Blue Care Network of Michigan

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***Current Policy Effective Date: 9/1/24**
(See policy history boxes for previous effective dates)

Title: Cardiac Rehabilitation, Outpatient

Description/Background

Heart disease is the leading cause of mortality in the United States, accounting for more than half of all deaths. Coronary artery disease is the most common cause of heart disease. In a 2024 update on heart disease and stroke statistics from the American Heart Association, it was estimated that 720,000 Americans have a new coronary attack (first hospitalized myocardial infarction or coronary heart disease death) and 335,000 have a recurrent attack annually.[1] Both coronary artery disease and various other disorders—structural heart disease and other genetic, metabolic, endocrine, toxic, inflammatory, and infectious causes—can lead to the clinical syndrome of heart failure, of which there are about 650,000 new cases in the United States annually.[2] The SARS2-CoV2 viral infection causes COVID-19 disease. Its effects can result in significant cardiovascular morbidity and mortality with and without prior CVD. A significant proportion of patients may experience long-term complications of SARS2-CoV2 infection (greater than four weeks from the index infection), sometimes called post-acute sequelae COVID-19 syndrome or long hauler's syndrome.[3] Given the burden of heart disease, preventing secondary cardiac events and treating the symptoms of heart disease and heart failure have received much attention from national organizations.

Cardiac Rehabilitation

In 1995, the U.S. Public Health Service defined cardiac rehabilitation services as, in part, "comprehensive, long-term programs involving medical evaluation, prescribed exercise, cardiac risk factor modification, education and counseling. These programs are designed to limit the physiologic and psychological effects of cardiac illness, reduce the risk for sudden death or re-infarction, control cardiac symptoms, stabilize or reverse the atherosclerotic process and enhance the psychosocial and vocational status of selected patients." This U.S. Public Health Service recommended cardiac rehabilitation services for patients with coronary heart disease and heart failure, including those awaiting or following cardiac transplantation. A 2010 definition of cardiac rehabilitation from the European Association of Cardiovascular Prevention and Rehabilitation stated: "Cardiac rehabilitation can be viewed as the clinical application of preventive care by means of a professional multi-disciplinary integrated approach for comprehensive risk reduction and global long-term care of cardiac patients."[4] Since the release

of the U.S. Public Health Service guidelines, other societies, including the American Heart Association (2005)[5] and the Heart Failure Society of America (2010)[6] have developed guidelines about the role of cardiac rehabilitation in patient care.

Cardiac rehabilitation programs are divided into three or more stages or phases:

- Phase I—Inpatient evaluation, including risk assessment, medication and diet education, early mobilization and discharge planning.
- Phase II—Post discharge evaluation and physical assessment which then focuses on continued health education and the return to physical activity which is structured and supervised for a period of four to six weeks. Outpatient cardiac rehabilitation sessions are generally limited to a maximum of 2 1-hour sessions per day for up to 36 sessions for up to 36 weeks, with the option for an additional 36 sessions over an extended period of time, if approved.
- Phase III—Prescribed exercise regimen performed by the patient, in the home or independent gym that does not require the presence or close supervision of a therapist or physician.
- Phase IV—The patient continues the prescribed exercise regimen at a cardiac rehab center where there is access to supervision, continued education and counseling.

Note: This policy does not address programs considered to be intensive cardiac rehabilitation. Refer to the policy titled, “Intensive Cardiac Rehabilitation.”

Regulatory Status

N/A

Medical Policy Statement

Short-term outpatient Phase II cardiac rehabilitation is established as safe and effective and is an accepted standard therapy in patients with a history of specific cardiac conditions or procedures.

Cardiac rehabilitation must be a physician-supervised program that furnishes a prescribed exercise program, cardiac risk factor modification that includes education, counseling, and behavioral intervention as well as psychosocial assessment and outcomes assessment.

Inclusionary and Exclusionary Guidelines

Inclusions:

Must meet all:

- Phase II cardiac rehabilitation
- Member must be medically stable and able to tolerate exercise for 20-40 minutes.
- Must have a least one diagnosis (documented within the last 12 months) listed below:
  - Acute myocardial infarction
  - Coronary artery bypass graft surgery

- Current stable angina pectoris
- Percutaneous transluminal coronary angioplasty or coronary stenting
- Heart valve surgery
- Heart or heart-lung transplant
- Stable, chronic heart failure

Exclusions:

- Phase III cardiac rehabilitation
- Phase IV cardiac rehabilitation
- Does not meet diagnostic criteria
- Repeat participation in a cardiac rehabilitation program in the absence of another qualifying cardiac event
- Intensive cardiac rehabilitation (Refer to medical policy, "Intensive Cardiac Rehabilitation")

CPT/HCPCS Level II Codes *(Note: The inclusion of a code in this list is not a guarantee of coverage. Please refer to the medical policy statement to determine the status of a given procedure.)*

Established codes:

93797 93798

Other codes (investigational, not medically necessary, etc.):

S9472

Note: Code(s) may not be covered by all contracts or certificates. Please consult customer or provider inquiry resources at BCBSM or BCN to verify coverage

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Rationale

Evidence reviews assess the clinical evidence to determine whether the use of technology improves the net health outcome. Broadly defined, health outcomes are the length of life, quality of life, and ability to function—including benefits and harms. Every clinical condition has specific outcomes that are important to patients and managing the course of that condition. Validated outcome measures are necessary to ascertain whether a condition improves or worsens; and whether the magnitude of that change is clinically significant. The net health outcome is a balance of benefits and harms.

To assess whether the evidence is sufficient to draw conclusions about the net health outcome of technology, 2 domains are examined: the relevance and the quality and credibility. To be relevant, studies must represent 1 or more intended clinical use of the technology in the intended population and compare an effective and appropriate alternative at a comparable intensity. For some conditions, the alternative will be supportive care or surveillance. The quality and credibility of the evidence depend on study design and conduct, minimizing bias and confounding that can generate incorrect findings. The randomized controlled trial (RCT) is preferred to assess efficacy; however, in some circumstances, nonrandomized studies may be adequate. RCTs are rarely large enough or long enough to capture less common adverse events and long-term effects. Other types of studies can be used for these purposes and to assess generalizability to broader clinical populations and settings of clinical practice.

OUTPATIENT CARDIAC REHABILITATION FOR HEART DISEASE

Clinical Context and Therapy Purpose

The purpose of cardiac rehabilitation in individuals who have heart disease is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The following PICO was used to select literature to inform this review.

Populations

The relevant population of interest is individuals with diagnosed heart disease.

Interventions

The treatment being considered is cardiac rehabilitation. Cardiac rehabilitation includes long-term programs that include medical evaluation, prescribed exercise, modification to reduce cardiac risks, education, and counseling.

Comparators

The comparator of interest is standard management without cardiac rehabilitation. The following practices are currently being used to manage heart disease: medication, surgery, and medical devices.

Outcomes

The general outcomes of interest are overall survival (OS), disease-specific survival, symptoms, and morbid events.

Once diagnosed with heart disease, a patient will require lifelong monitoring by a cardiologist.

Study Selection Criteria

Methodologically credible studies were selected using the following principles:

1. To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs.
2. In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
3. To assess long-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
4. Studies with duplicative or overlapping populations were excluded.

Review of Evidence

Systematic Reviews

Oldridge (2012) identified 6 independent meta-analyses published since 2000 that reported outcomes from 71 RCTs (N=13824 patients) following cardiac rehabilitation interventions.[7] The RCTs included in the meta-analyses enrolled patients with myocardial infarction, coronary heart disease, angina, percutaneous coronary intervention (PCI), and/or coronary artery bypass graft (CABG). The RCTs compared cardiac rehabilitation programs (exercise only and/or comprehensive rehabilitation) with usual care. Cardiac rehabilitation was associated with a statistically significant ($p<.05$) reduction in all-cause mortality in 4 of the 5 meta-analyses that reported this outcome. In the pooled analysis, cardiac rehabilitation was associated with

an 18.5% mean reduction in all-cause mortality. In addition, cardiac rehabilitation was associated with a statistically significant reduction in cardiac mortality in 3 of the 4 meta-analyses that reported disease-specific mortality as an outcome.

Two of the meta-analyses on cardiac rehabilitation were Cochrane reviews. One included patients with coronary heart disease (CHD)[7] and the other focused on patients with systolic heart failure.[9] Both addressed exercise-based cardiac rehabilitation programs (exercise alone or as part of comprehensive program). Anderson et al (2016) updated a 2011 Cochrane review addressing exercise-based cardiac rehabilitation for individuals with CHD.[8,10] Reviewers included RCTs of exercise-based interventions with at least 6 months of follow-up compared with no-exercise controls in patients with myocardial infarction, CABG, or percutaneous coronary intervention, or with angina pectoris or coronary artery disease. The updated review included 63 RCTs (N=14486 individuals), of which 16 trials had been published since the 2011 update. Reviewers reported that the overall risk of bias was unclear, although the quality of reporting improved with more recent trials. Due to the nature of the intervention, patients were not blinded to the treatment group in any of the studies, but 16 (25%) of 62 studies reported details of blinded assessment of study outcomes. In the pooled analysis, cardiac rehabilitation was not significantly associated with overall mortality. However, among 27 studies, cardiac rehabilitation was significantly associated with reduced cardiovascular mortality (292/3850 for cardiac rehabilitation subjects versus 375/3619 for control subjects; relative risk [RR], 0.74; 95% confidence interval [CI], 0.64 to 0.86). Rates of myocardial infarction, CABG, and percutaneous coronary intervention were not significantly associated with receiving cardiac rehabilitation.

Long et al (2019) reported a Cochrane Review of studies assessing cardiac rehabilitation in patients with heart failure. A total of 44 RCTs were evaluated - 11 of which were new trials, for the effects of exercise-based cardiac rehabilitation on adults with heart failure (5783 total participants).[11] A single trial, Exercise Based Cardiac Rehabilitation for Adults With Heart Failure (HF-ACTION), contributed almost half of the patients (with results reported in 18 publications); most other studies were small and single-center. All studies had 6 months or longer follow-up and did not include a formal exercise training intervention as a comparator. The primary outcomes reported were mortality, hospital admission, and health-related quality of life (HRQoL). The overall risk of bias was assessed as being low or unclear, and results were downgraded using the GRADE tool for all outcomes except 1. Results showed that cardiac rehabilitation had little effect on all-cause mortality over ≤1 year of follow-up (27 trials, 2596 participants: cardiac rehabilitation 5.1% versus control 5.8%; low-quality evidence). However, cardiac rehabilitation may make a difference in the long-term (>1 year of follow-up; 6 trials, 2845 participants: cardiac rehabilitation 17.2% versus control 19.6%; high-quality evidence). Mortality related to heart failure was not consistently reported in the studies. Chances of avoiding hospital admission for any cause within 12 months of follow-up were better with cardiac rehabilitation (21 trials, 2182 participants: cardiac rehabilitation 16.5% versus control 23.7%; moderate-quality evidence). Cardiac rehabilitation may also reduce short-term heart failure-related hospital admission (14 trials, 1114 participants: cardiac rehabilitation 7.1% versus control 11.1%; RR 0.59, 95% CI, 0.42 to 0.84; p=.003), but the evidence was rated low quality. HRQoL was reported by 29 trials, most of which used the Minnesota Living With Heart Failure questionnaire; however, other tools were also used among the 29 trials that reported validated HRQoL measures. For exercise-based cardiac rehabilitation, no trials reported lower HRQoL scores with cardiac rehabilitation than with control, and all but 1 reported on results at ≥6 months follow-up. The pooled results from all

measures used showed a clinically important improvement (a 5-point difference on the Minnesota Living With Heart Failure with exercise at up to 12 months' follow-up, but the evidence was of very low quality. Compared with the 2014 review, this version included more women, older patients, participants with heart failure with preserved ejection fraction in recent trials, and more trials of cardiac rehabilitation in a home-based setting, this version may be more valid and applicable. A 2023 update by Molloy et al identified 16 new trials. Improvements in all-cause mortality, all-cause hospitalization, and HF-related hospitalization were noted with cardiac rehabilitation in any setting compared with usual care; however, the improvements were only significant for all-cause hospitalization in the short term (RR, 0.69, 95% CI, 0.56-0.86)[12].

Table 1. Systematic Review Characteristics

Study	Dates	Trials	Participants	N (Range)	Design
Davies et al (2010)[9]	1995-2008	29	All adults with chronic systolic HF	3,647 (20-2,331)	RCT
Oldridge (2012)[7]	2000-2011	71	Patients with MI, CHD, angina, PCI, and/or CABG	13,824 (6,111-10,794)	RCT
Anderson et al (2016)[8]	1975-2014	63	Patients with MI, angina pectoris, CAD, or who underwent CABG or PCI	14,486 (25-3,184)	RCT
Long et al (2019)[11]	1995-2018	44	Patients with HF	5,783 (19-2,331)	RCT
Molloy et al (2023)[12]	Through December 2021	60	Patients with HF	8728 (NR)	RCT

CABG: coronary artery bypass graft; CAD: coronary artery disease; CHD: coronary heart disease; HF: heart failure; MI: myocardial infarction; PCI: percutaneous coronary intervention; RCT: randomized controlled trial.

Table 2. Systematic Review Results

Study	All-Cause Mortality	Cardiovascular Mortality
Davies et al (2010)[9]	13 studies (≤12 mo)	NR
Difference in pooled mortality, fixed-effect RR	1.02	NR
95% CI	0.70-1.51	NR
p-value	.90	NR
Oldridge (2012)[7]	6 studies	6 studies
Reduction, mean %	18.50	29.4
p-value	<.05	NR
Range, %	NR	20-43
Anderson et al (2016)[8]	47 studies; N=12,455 participants	27 studies; N=7,469 participants
RR	0.96	0.74
95% CI	0.88-1.04	0.64-0.86
Long et al (2019)[11]	2,845 participants, 6 studies	(studies did not consistently report deaths due to heart failure)
RR	0.88	NR
95 % (CI)	0.75-1.02	NR
Molloy et al (2023)[12]	3780 participants, 8 studies	NR
RR	0.87 (long-term, >12 months)	NR
95% CI	0.72 to 1.04	NR

CI: confidence interval; NR: not reported; RR: relative risk

Randomized Controlled Trials

Findings of a large, multicenter RCT from the United Kingdom, which evaluated the effectiveness of cardiac rehabilitation in a "real-life" setting were published by West et al (2012).[13] Called the Rehabilitation After Myocardial Infarction Trial (RAMIT), the study included patients from 14 centers with established multifactorial cardiac rehabilitation (including exercise, education, and counseling), involved more than 1 discipline, and provided an intervention lasting a minimum of 10 hours. A total of 1813 patients were randomized:903 to cardiac rehabilitation and 910 to a control condition. Vital status was obtained at 2 years for 99.9% of participants (all but 1 patient) and at 7 to 9 years for 99.4% of patients. By 2 years, 166 patients had died, 82 in the cardiac rehabilitation group and 84 in the control group. The between-group difference in mortality at 2 years (the primary study outcome) was not statistically significant (RR=0.98; 95% CI, 0.74 to 1.30). After 7 to 9 years, 488 patients had died, 245 in the cardiac rehabilitation group and 243 in the control group (RR=0.99; 95% CI, 0.85 to 1.15). In addition, at 1 year, cardiovascular morbidity did not differ significantly between groups. For a combined end point including death, nonfatal myocardial infarction, stroke or revascularization, the RR was 0.96 (95% CI, 0.88 to 1.07). In discussing the study's negative findings, the trialists noted that medical management of heart disease has improved over time, and patients in the control group might have had better outcomes than in earlier RCTs on this topic. Moreover, an editorial accompanying publication of the trial's findings emphasized that RAMIT was not an efficacy trial, but rather, a trial evaluating the effectiveness of actual cardiac rehabilitation programs in the United Kingdom.[14] Finally, these results might in part reflect the degree to which clinically-based cardiac rehabilitation programs in the United Kingdom differ from the treatment protocols used in RCTs based in research settings.

A concern raised by the negative findings in the RAMIT trial is that most of the RCTs evaluating cardiac rehabilitation were conducted in an earlier era of heart disease management and may not be relevant to current care. However, RAMIT's results, along with 15 additional RCTs reported since a 2011 Cochrane review, were included in the updated 2016 Cochrane review, which found improvements in cardiovascular mortality associated with exercise-based cardiac rehabilitation.

Pandey et al (2017) evaluated endurance exercise training as part of a cardiac rehabilitation program in a population of heart failure patients stratified by ejection fraction.[15] Participants had heart failure with preserved ejection fraction or reduced ejection fraction, were 65 years of age or older, and had participated in a 16-week exercise program that intensified from 40% to 50% of heart rate reserve in the first 2 weeks to 60% to 70% over the ensuing weeks as part of a previously published RCT.[16] The primary outcome for assessing change in exercise capacity was percentage change in peak oxygen uptake (mL/kg per minute) from baseline to end of exercise training (16-week follow-up). Data on testing from 48 patients (24 reduced ejection fraction, 24 heart failure with preserved ejection fraction) were assessed. Heart failure with preserved ejection fraction patients experienced greater improvement in exercise training patients (18.7%) than reduced ejection faction patients (-0.3%; p<.001) as measured by peak oxygen uptake. There was no information on subsequent hospitalization rates or clinical outcomes such as heart failure progression or mortality. This secondary analysis was used to assert the appropriateness of cardiac rehabilitation in heart failure with preserved ejections fraction patients.

Opotowsky et al (2018) compared cardiac rehabilitation to the standard of care in 28 subjects (mean age: 41.1 years) with moderate to severe congenital heart disease.[17] Cardiac rehabilitation was associated with a significant increase in peak oxygen consumption with no associated adverse events. There was also a nonsignificant improvement in peak work rate with cardiac rehabilitation as compared to standard of care (p=.16) and a significant improvement in self-assessment of overall health (p<.04). However, the study was limited by its small sample size and short-term follow-up.

Tables 3 and 4 provide a summary of key RCT characteristics and results.

Table 3. Summary of Key Randomized Controlled Trial Characteristics

Trial	Countries	Sites	Dates	Participants	Interventions	
					Active	***Comparator***
West et al (2012); RAMIT[13]	United Kingdom	14	1997-2000	Patients diagnosed with acute MI (N=1813)	Cardiac rehabilitation (n=903)	Control (n=910)
Pandey et al (2017)[15]	U.S.	1	NR	Patients aged ≥ 65 with HFrEF (n=24) or HFpEF (n=24)	16-wk supervised moderate endurance exercise training (n=48)	HRrEF (n=24) vs. HFpEF (n=24)
Opotowsky et al (2018)[17]	U.S.	1	NR	Patients aged ≥ 16 with moderate to severe congenital heart disease (N=28)	12-wk cardiac rehabilitation (n=13)	Standard of care (n=15)

HF: heart failure; HFpEF: HF with preserved ejection fraction; HFrEF: HF with reduced ejection fraction; MI: myocardial infarction; NR: not reported; RCT: randomized controlled trial; RAMIT: Rehabilitation After Myocardial Infarction Trial.

Table 4. Summary of Key Randomized Controlled Trial Results

Study	2-yr Mortality	Readmission to Hospital for Any Cardiac Condition at 1 y	Training-Related Improvement in Vo2 peak Change
West et al (2012); RAMIT[13]	N=1813 participants	N=1813 participants	NR
CR	82 patients	222 (25%)	NR
Control	84 patients	239 (26%)	NR
RR	0.98	NR	NR
95% CI	0.74-1.30	NR	NR
Pandey et al (2017)[15]	NR	NR	N=48 participants
HFrEF	NR	NR	18.7+/-17.6
HFpEF	NR	NR	-0.3+/-15.4
p-value	NR	NR	<.001
Opotowsky et al (2018)[17]			
CR	NR	NT	+2.2 mL/kg/min (compared to standard of care)
95% CI; p value	NR	NR	0.7 to 3.7; p=.002

CI: confidence interval; CR: cardiac rehabilitation; HF: heart failure; HFpEF: HF with preserved ejection fraction; HFrEF: HF with reduced ejection fraction; NR: not reported; RCT: randomized controlled trial; RR: relative risk; Vo_2peak: peak ox; RAMIT: Rehabilitation After Myocardial Infarction Trial.

The purpose of the limitations tables (Tables 5 and 6) is to display notable limitations identified in each study. This information is synthesized as a summary of the body of evidence following each table and provides the conclusions on the sufficiency of the evidence supporting the position statement.

Table 5. Study Relevance Limitations

Study	Population[a]	Intervention[b]	Comparator[c]	Outcomes[d]	Follow-Up[e]
West et al (2012); RAMIT[13]	4,5. Descriptions of diversity in study populations were not reported				1,2. Trial was closed prematurely
Pandey et al (2017)[15]	4. Enrolled populations do not reflect relevant diversity; 81% of participants were White		2. No comparator used		1,2. Only 16 wks follow-up
Opotowsky et al (2018)[17]	4,5. Descriptions of diversity in study populations were not reported			1. Key health outcomes such as mortality or readmission not addressed	1,2. Only 12 wks follow-up

The study limitations stated in this table are those notable in the current review; this is not a comprehensive gaps assessment.
a Population key: 1. Intended use population unclear; 2. Study population is unclear; 3. Study population not representative of intended use; 4, Enrolled populations do not reflect relevant diversity; 5. Other.
b Intervention key: 1. Not clearly defined; 2. Version used unclear; 3. Delivery not similar intensity as comparator; 4. Not the intervention of interest; 5. Other.
c Comparator key: 1. Not clearly defined; 2. Not standard or optimal; 3. Delivery not similar intensity as intervention; 4. Not delivered effectively; 5. Other.
d Outcomes key: 1. Key health outcomes not addressed; 2. Physiologic measures, not validated surrogates; 3. No CONSORT reporting of harms; 4. Not establish and validated measurements; 5. Clinical significant difference not prespecified; 6. Clinical significant difference not supported; 7. Other.
e Follow-Up key: 1. Not sufficient duration for benefit; 2. Not sufficient duration for harms; 3. Other.
RAMIT: Rehabilitation After Myocardial Infarction Trial.

Table 6. Study Design and Conduct Limitations

Study	Allocation[a]	Blinding[b]	Selective Reporting[c]	Follow-Up[d]	Power[e]	Statistical[f]
West et al (2012); RAMIT[13]	3. Allocation concealment unclear	1,2. Not blinded				
Pandey et al (2017)[15]	1. Participants not randomly allocated	1,2. Not blinded				
Opotowsky et al (2018)[17]		1,2. Not blinded			1. Power calculations Not reported	

RAMIT: Rehabilitation After Myocardial Infarction Trial.
The study limitations stated in this table are those notable in the current review; this is not a comprehensive gaps s assessment.
a Allocation key: 1. Participants not randomly allocated; 2. Allocation not concealed; 3. Allocation concealment unclear; 4. Inadequate control for selection bias.
b Blinding key: 1. Not blinded to treatment assignment; 2. Not blinded outcome assessment; 3. Outcome assessed by treating physician.
c Selective Reporting key: 1. Not registered; 2. Evidence of selective reporting; 3. Evidence of selective publication.
d Follow-Up key: 1. High loss to follow-up or missing data; 2. Inadequate handling of missing data; 3. High number of crossovers; 4. Inadequate handling of crossovers; 5. Inappropriate exclusions; 6. Not intent to treat analysis (per protocol for

noninferiority trials).
e Power key: 1. Power calculations not reported; 2. Power not calculated for primary outcome; 3. Power not based on clinically important difference.
f Statistical key: 1. Intervention is not appropriate for outcome type: (a) continuous; (b) binary; (c) time to event; 2. Intervention is not appropriate for multiple observations per patient; 3. Confidence intervals and/or p values not reported; 4. Comparative treatment effects not calculated.

Observational Studies

Sumner et al (2017) published a systematic review of controlled observational studies evaluating cardiac rehabilitation in patients diagnosed with acute myocardial infarction.[18] Cardiac rehabilitation interventions consisted of structured multicomponent programs that included exercise and at least 1 of the following: education, information, health behavior change, and psychological or social support. Usual care interventions, generally supervised medical interventions, were the control conditions. Ten studies met reviewers' eligibility criteria. In a meta-analysis of 5 studies reporting all-cause mortality (an unadjusted outcome), there was a significantly lower risk of death in the group that received cardiac rehabilitation (odds ratio [OR], 0.25; 95% CI, 0.16 to 0.40). Three studies that reported an adjusted analysis of all-cause mortality also found a significant benefit from cardiac rehabilitation (OR, 0.47; 95% CI, 0.38 to 0.59). Similarly, a meta-analysis of 3 studies reporting cardiac-related mortality (an unadjusted analysis) found a significant benefit from cardiac rehabilitation (OR, 0.21; 95% CI, 0.12 to 0.37). Only 1 study reported an adjusted analysis of cardiac-related mortality, so data could not be pooled.

Nilsson et al (2018) investigated the effect of a 12-week cardiac rehabilitation program with a high-intensity interval exercise component using participant peak oxygen uptake as a measure of improved exercise capacity.[19] Increased exercise capacity has been shown to improve survival among persons with coronary heart disease. The objective of the study was to assess whether this addition to a cardiac rehabilitation program yielded improved long-term results. One hundred thirty-three coronary patients participated in this prospective cohort study and were evaluated at baseline, at the end of the 12-week program, and again at a 15-month follow-up. Additional test measurements included a cardiopulmonary exercise test, body mass index, blood pressure tests, and quality of life questionnaire. Of the 133 patients, 86 patients had complete information for the 15-month follow-up. Mean peak oxygen uptake improved from a baseline of 31.9 mL/kg/min to 35.9 mL/kg/min (p<.001) at the end of the 12-week program, and to 36.8 mL/kg/min (CI not reported) at 15-month follow-up. Most of the 86 patients reported maintaining an exercise routine. Study limitations included the small sample size, a relatively low-risk male population at baseline, and lack of information on the qualifying event for cardiac rehabilitation. The authors concluded that the cardiac rehabilitation program intervention potentially fostered consistent and beneficial exercise habits as demonstrated by improved peak oxygen uptake.

Jafri et al (2021) conducted a retrospective cohort study to evaluate home-based cardiac rehabilitation (HBCR) in patients with established cardiovascular disease.[20] A total of 269 patients at a Veterans Affairs Medical Center were eligible for inclusion (HBCR group, n=157; non-HBCR control group, n=100); 12 patients were excluded due to having outcomes less than 90 days after enrollment (study follow-up period was between 3 to 12 months). Most patients (98%) were male, and the mean age was 72 years. The primary outcome was composite all-cause mortality, hospitalizations, and secondary outcomes were all-cause hospitalization, all-cause mortality, and cardiovascular hospitalizations. The primary composite outcome occurred in both the HBCR (n=30) and control (n=30) (adjusted hazard ratio [HR], 0.56; 95% CI 0.33 to 0.95; p=.03). All-cause mortality occurred in 6.4% of HBCR patients versus 13% of the control

group (adjusted HR 0.43; 95% CI 0.18 to 1.0; p=.05). There was no difference in cardiovascular or all-cause hospitalizations between groups.

Section Summary: Outpatient Cardiac Rehabilitation for Heart Disease
Overall, the evidence from RCTs reviewed in well-structured systematic reviews suggests that cardiac rehabilitation is associated with reduced cardiovascular mortality in patients with coronary heart disease. Additional RCTs, systematic reviews, and observational studies have evaluated outpatient cardiac rehabilitation in patients with heart failure or in the postintervention setting. An overview of 6 meta-analyses found a statistically significant association between cardiac rehabilitation and reduction in all-cause mortality and/or cardiac mortality. The available evidence has limitations, including lack of blinded outcome assessment, but, for the survival-related outcomes of interest, this limitation is less critical.

REPEAT OUTPATIENT CARDIAC REHABILITATION

Clinical Context and Therapy Purpose
The purpose of repeat cardiac rehabilitation in individuals who have heart disease without a second event is to provide a treatment option that is an alternative to or an improvement on existing therapies.

The following PICO was used to select literature to inform this review.

Populations
The relevant population of interest is individuals with diagnosed heart disease who have had cardiac rehabilitation before but who have not had a second cardiac event.

Interventions
The treatment being considered is repeat cardiac rehabilitation. Cardiac rehabilitation includes long-term programs that include medical evaluation, prescribed exercise, modification to reduce cardiac risks, education, and counseling.

Comparators
The comparator of interest is standard management with a single course of cardiac rehabilitation. Cardiac rehabilitation includes long-term programs that include medical evaluation, prescribed exercise, modification to reduce cardiac risks, education, and counseling.

Outcomes
The general outcomes of interest are OS, disease-specific survival, symptoms, and morbid events.

Once diagnosed with heart disease, a patient will require lifelong monitoring by a cardiologist.

Study Selection Criteria
Methodologically credible studies were selected using the principles described in the first indication.

REVIEW OF EVIDENCE

No studies were identified that evaluated the effectiveness of repeat participation in a cardiac rehabilitation program.

Section Summary: Repeat Outpatient Cardiac Rehabilitation

For individuals who have been diagnosed with heart disease without a second event who receive repeat outpatient cardiac rehabilitation, the evidence includes no trials.

Post-Acute Cardiac Sequelae of SARS-CoV-2 Infection

Clinical Context and Therapy Purpose

The purpose of outpatient cardiac rehabilitation is to provide a treatment option that is an alternative to or an improvement on standard management without outpatient cardiac rehabilitation.

The following PICO was used to select literature to inform this review.

Populations

The relevant population of interest is individuals with post-acute cardiac sequelae of SARS-CoV-2 infection or COVID-19. The Centers for Disease Control and Prevention define the post-acute period as symptoms persisting at 4 or more weeks following infection with SARS-CoV-2.[22,] The World Health Organization developed the following consensus case definition of 'post COVID-19 condition': individuals with "a history of probable or confirmed SARS CoV-2 infection, usually 3 months from the onset of COVID-19 with symptoms and that last for at least 2 months and cannot be explained by an alternative diagnosis. Common symptoms include fatigue, shortness of breath, cognitive dysfunction but also others and generally have an impact on everyday functioning. Symptoms may be new onset following initial recovery from an acute COVID-19 episode or persist from the initial illness. Symptoms may also fluctuate or relapse over time."[23]

Interventions

The treatment being considered is cardiac rehabilitation. Cardiac rehabilitation includes long-term programs that include medical evaluation, prescribed exercise, modification to reduce cardiac risks, education, and counseling.

Comparators

The comparator of interest is standard management without cardiac rehabilitation. The following practices are currently being used to manage heart disease: medication, surgery, and medical devices.

Outcomes

The general outcomes of interest are OS, disease-specific survival, symptoms, and morbid events.

Once diagnosed with heart disease, a patient will require lifelong monitoring by a cardiologist.

Study Selection Criteria

Methodologically credible studies were selected using the following principles:

- To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs.
- In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
- To assess longer-term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
- Studies with duplicative or overlapping populations were excluded.

Review of Evidence

Reports of patient rehabilitation after COVID-19 recovery have largely been observational, without clearly identifiable cardiac rehabilitation components within multidisciplinary or cardiorespiratory rehabilitation programs.

No studies specifically assessing the efficacy of cardiac rehabilitation programs for post-acute cardiac sequelae of SARS-CoV-2 infection were identified.

Section Summary: Post-Acute Cardiac Sequelae of SARS-CoV-2 Infection

Post acute cardiac sequelae of SAR-CoV-2 is a relatively new diagnosis. No direct evidence on the efficacy of cardiac rehabilitation programs in patients with post-acute cardiac sequelae of SARS-CoV-2 infection was identified. However, controlled prospective studies in well-defined patient populations with sufficient long term follow up should be done to evaluate net health outcomes.

SUMMARY OF EVIDENCE

For individuals who have been diagnosed with heart disease and receive outpatient cardiac rehabilitation, the evidence includes multiple randomized controlled trials (RCTs) and systematic reviews of these trials. Relevant outcomes are overall survival, disease-specific survival, symptoms, and morbid events. Meta-analyses of the available trials have found that cardiac rehabilitation improves health outcomes for select patients, particularly those with coronary heart disease, heart failure, and who have had cardiac surgical interventions. The available evidence has limitations, including lack of blinded outcome assessment, but, for the survival-related outcomes of interest, this limitation is less critical. The evidence is sufficient to determine that the technology results in a meaningful improvement in the net health outcome.

For individuals who have been diagnosed with heart disease without a second event and receive repeat outpatient cardiac rehabilitation, the evidence includes no trials. Relevant

outcomes are overall survival, disease-specific survival, symptoms, and morbid events. No studies were identified evaluating the effectiveness of repeat participation in a cardiac rehabilitation program. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.
For individuals who have heart disease due to post-acute sequelae of SARS-CoV-2 infection who received cardiac rehabilitation in the outpatient setting, there is no relevant evidence at this time of the effects of cardiac rehabilitation in this patient population. However, relevant outcomes are OS, disease-specific survival, symptoms, and morbid events. Controlled prospective studies in well-defined SARS-CoV-2 patient populations, sufficient long term follow up should be done to evaluate net health outcomes.

SUPPLEMENTAL INFORMATION

The purpose of the following information is to provide reference material. Inclusion does not imply endorsement or alignment with the evidence review conclusions.

PRACTICE GUIDELINES AND POSITION STATEMENTS

Guidelines or position statements will be considered for inclusion in 'Supplemental Information' if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

American Heart Association

In 2007, the American Heart Association and the American Association of Cardiovascular and Pulmonary Rehabilitation issued an updated consensus statement on the core components of cardiac rehabilitation programs.[2] The core components included patient assessment before beginning the program, nutritional counseling, weight management, blood pressure management, lipid management, diabetes management, tobacco cessation, psychosocial management, physical activity counseling, and exercise training. Programs that only offered supervised exercise training were not considered cardiac rehabilitation. The guidelines specified the assessment, interventions, and expected outcomes for each of the core components. For example, symptom-limited exercise testing before exercise training was strongly recommended. The guidelines did not specify the optimal overall length of programs or the number or duration of sessions.

In 2019, the American Heart Association, with the American Association of Cardiovascular and Pulmonary Rehabilitation and the American College of Cardiology, released a scientific statement on home-based cardiac rehabilitation (HBCR).[21] They make the following suggestions for healthcare providers:

- Recommend center-based cardiac rehabilitation (CBCR) to all eligible patients.
- As an alternative, recommend HBCR to clinically stable low- and moderate-risk patients who cannot attend CBCR.
- Design and test HBCR "using effective processes of care for CVD [cardiovascular disease] secondary prevention."
- For healthcare organizations, develop and support the following:
    - Maximization of cardiac rehabilitation (CR) referrals

    - High-quality CBCR and HBCR programs “using evidence-based standards and guidelines, strategies to maximize patient adherence both in the shorter and longer-term, and outcome tracking methods to help promote continuous quality improvement.”
    - “Testing and implementation of an evidence-based hybrid approach to CR" that are optimized for each patient and that "promote long-term adherence and favorable behavior change.”
- For CR professionals, “work with other healthcare professionals and policymakers to implement additional research and...expand the evidence base for HBCR.”

The guideline does not use the terminology "virtual" cardiac rehabilitation, but it states that electronic tools such as text messaging, smartphone applications, and wearable sensors may allow patients to follow personalized recommendations for exercise, dietary, and behavioral interventions, and thus expand the number of patients who can participate in cardiac rehabilitation. Other benefits of technology-assisted HBCR include greater patient engagement and patient-provider communication. The panel stated that studies were needed regarding the effect of technology-assisted HBCR on outcomes.

American College of Cardiology Foundation/American Heart Association
The 2022 American College of Cardiology (ACC) and the American Heart Association (AHA) heart failure guidelines recommend rehabilitation for Stage C heart failure stating, “In patients with HF, a cardiac rehabilitation program can be useful to improve functional capacity, exercise tolerance, and health-related QOL.”[24]

In 2023, the ACC/AHA published a statement on supervised exercise training specific to patients with chronic heart failure with preserved ejection fraction (HFpEF) and concluded, "data reviewed herein demonstrate a comparable or larger magnitude of improvement in exercise capacity from supervised exercise training in patients with chronic HFpEF compared with those with heart failure with reduced ejection fraction."[25]

U.S. Preventive Services Task Force Recommendations
Not applicable.

Medicare National Coverage

Cardiac Rehabilitation

Since 1989, Medicare has had a national coverage determination (NCD) for cardiac rehabilitation. The NCD was retired in April 2023. CMS periodically retires NCDs that no longer contain clinically pertinent and/or current information or no longer reflect current medical practice. In the absence of NCDs, coverage determinations are made by the Medicare Administrative Contractors (MACs) under section 1862(a)(1)(A) of the Social Security Act.

Ongoing and Unpublished Clinical Trials
Some currently unpublished trials that might influence this review are listed in Table 7.

Table 7. Summary of Key Trials

NCT No.	Trial Name	Planned Enrollment	Completion Date

Ongoing			
NCT06077201	Home-Based Cardiac Rehabilitation Using a Novel Mobile Health Exercise Regimen Following Transcatheter Heart Valve Interventions	375	Oct 2026
NCT05933083	MCNAIR Study: comparative effectiveness of iN-person and telehealth Cardiac Rehabilitation	516	Oct 2027
NCT05972070	Integration of Telemedicine and Home-Based Cardiac Rehabilitation: Feasibility, Efficacy, and Adherence	500	Nov 2023
NCT04245813	Effectiveness of a Cardiac Rehabilitation Program in Patients With Heart Failure	144	May 2023
NCT02984449	Preventive Heart Rehabilitation in Patients Undergoing Elective Open Heart Surgery to Prevent Complications and to Improve Quality of Life (Heart-ROCQ) - A Prospective Randomized Open Controlled Trial, Blinded End-point (PROBE)	350	Aug 2025
NCT05270993	An Integrative Cardiac Rehabilitation Employing Smartphone Technology (iCREST) for Patients With Post-myocardial Infarction: A Randomized Controlled Trial	124	Dec 2023
NCT05689385	The Effectiveness of eHealth-based Cardiac Rehabilitation in Post-myocardial Infarction Patients; a Randomized Controlled Trial	150	Dec 2024
NCT05610358	Efficacy of Smartphone Application Based Rehabilitations in Patients With Chronic Respiratory or Cardiovascular Disease	162	Dec 2024
NCT02791685	Smartphone Delivered In-home Cardiopulmonary Rehabilitation	300	Dec 2026

NCT: national clinical trial.

Government Regulations
National:

Medicare Benefit Policy Manual, Chapter 15 – Covered Medical and Other Health Services, Section 232 Cardiac Rehabilitation (CR) and Intensive Cardiac Rehabilitation (ICR) Services Furnished on or after January 1, 2024
(Rev. 12497; Issued: 02-08-24; Effective: 01-01-24; Implementation: 03-12-24)

Cardiac rehabilitation (CR) means a physician or nonphysician practitioner supervised program that furnishes physician prescribed exercise; cardiac risk factor modification, including education, counseling, and behavioral intervention; psychosocial assessment; and outcomes assessment. Intensive cardiac rehabilitation (ICR) program means a physician or nonphysician practitioner supervised program that furnishes CR and has shown, in peer-reviewed published research, that it improves patients' cardiovascular disease through specific outcome measurements described in 42 CFR 410.49(c). Nonphysician practitioner means a physician assistant, nurse practitioner, or clinical nurse specialist as those terms are defined in section 1861(aa)(5)(A) of the Social Security Act (the Act).

Effective January 1, 2010, Medicare Part B pays for CR/ICR if specific criteria are met by the Medicare beneficiary, the CR/ICR program itself, the setting in which it is administered, and the physician administering the program, as outlined below.

Covered Conditions:

As specified in 42 CFR 410.49, Medicare Part B covers CR and ICR for beneficiaries who have experienced one or more of the following:

• An acute myocardial infarction (MI) within the preceding 12 months;
• A coronary artery bypass surgery; • Current stable angina pectoris;
• Heart valve repair or replacement; • Percutaneous transluminal coronary angioplasty (PTCA) or coronary stenting;
• A heart or heart-lung transplant.
• Stable, chronic heart failure defined as patients with left ventricular ejection fraction of 35% or less and New York Heart Association (NYHA) class II to IV symptoms despite being on optimal heart failure therapy for at least 6 weeks, on or after February 18, 2014, for CR and on or after February 9, 2018, for ICR; or
• Other cardiac conditions as specified through a national coverage determination (NCD). The NCD process may also be used to specify non-coverage of a cardiac condition for ICR if coverage is not supported by clinical evidence.

CR and ICR must include all of the following components:

Physician-prescribed exercise. Physician-prescribed exercise means aerobic exercise combined with other types of exercise (such as strengthening and stretching) as determined to be appropriate for individual patients by a physician each day CR/ICR items and services are furnished.

Cardiac risk factor modification. Cardiac risk factor modification, including education, counseling, and behavioral intervention, tailored to the individual's needs. Psychosocial assessment. Psychosocial assessment means an evaluation of an individual's mental and emotional functioning as it relates to the individual's rehabilitation which includes an assessment of those aspects of an individual's family and home situation that affects the individual's rehabilitation treatment, and psychosocial evaluation of the individual's response to and rate of progress under the treatment plan. Outcomes assessment. Outcomes assessment means an evaluation of progress as it relates to the individual's rehabilitation which includes all of the following: (i) Evaluations, based on patient-centered outcomes, which must be measured by the physician or program staff at the beginning and end of the program. Evaluations measured by program staff must be considered by the physician in developing and/or reviewing individualized treatment plans. (ii) Objective clinical measures of exercise performance and self-reported measures of exertion and behavior.

Individualized treatment plan. Individualized treatment plan means a written plan tailored to each individual patient that includes all of the following: (i) A description of the individual's diagnosis. (ii) The type, amount, frequency, and duration of the items and services furnished under the plan. (iii) The goals set for the individual under the plan. The individualized treatment plan detailing how components are utilized for each patient, must be established, reviewed, and signed by a physician every 30 days. As specified at 42 CFR 410.49(f)(1), the number of CR sessions are limited to a maximum of 2 1-hour sessions per day for up to 36 sessions over up to 36 weeks with the option for an additional 36 sessions over an extended period of time if approved by the Medicare Administrative Contractor (MAC).

As specified at 42 CFR 410.49(f)(2), ICR sessions are limited to 72 1-hour sessions (as defined in section 1848(b)(5) of the Act), up to 6 sessions per day, over a period of up to 18 weeks.

CR and ICR Settings: Medicare Part B pays for CR and ICR in a physician's office or a hospital outpatient setting. All settings must have a physician or nonphysician practitioner immediately available and accessible for medical consultations and emergencies at all times when items and services are being furnished under the program. This provision is satisfied if the physician or nonphysician practitioner meets the requirements for direct supervision for physician office services, at 42 CFR 410.26, and for hospital outpatient services at 42 CFR 410.27.
Standards for an ICR Program: To be approved as an ICR program, a program must demonstrate through peer-reviewed, published research that it has accomplished one or more of the following for its patients: (i) Positively affected the progression of coronary heart disease. (ii) Reduced the need for coronary bypass surgery. (iii) Reduced the need for percutaneous coronary interventions. An ICR program must also demonstrate through peer-reviewed published research that it accomplished a statistically significant reduction in 5 or more of the following measures for patients from their levels before CR services to after CR services: (i) Low density lipoprotein. (ii) Triglycerides. (iii) Body mass index. (iv) Systolic blood pressure. (v) Diastolic blood pressure. (vi) The need for cholesterol, blood pressure, and diabetes medications.

A list of approved ICR programs, identified through the NCD process, will be listed in the Federal Register and is available on the CMS website at https://www.cms.gov/Medicare/Medicare-GeneralInformation/MedicareApprovedFacilitie/ICR. All prospective ICR sites must apply to enroll as an ICR program site using the designated forms as specified at 42 CFR 424.510, and report specialty code 31 to be identified as an enrolled ICR supplier. For purposes of appealing an adverse determination concerning site approval, an ICR site is considered a supplier (or prospective supplier) as defined in 42 CFR 498.2.

CR and ICR Medical Director Standards: Medical director means the physician who oversees the CR or ICR program at a particular site. The medical director is the physician responsible for a CR or ICR program and, in consultation with staff, is involved in directing the progress of individuals in the program and must possess all of the following: (1) Expertise in the management of individuals with cardiac pathophysiology. (2) Cardiopulmonary training in basic life support or advanced cardiac life support. (3) Be licensed to practice medicine in the State in which the CR or ICR program is offered.

Supervising Practitioner Standards: Supervising practitioner means a physician or nonphysician practitioner that is immediately available and accessible for medical consultations and medical emergencies at all times items and services are being furnished to individuals under CR and ICR programs. Physicians or nonphysician practitioners acting as the supervising practitioner must possess all of the following: (1) Expertise in the management of individuals with cardiac pathophysiology. (2) Cardiopulmonary training in basic life support or advanced cardiac life support.

Medicare Claims Processing Manual, Chapter 32, Section 140.2 Cardiac Rehabilitation Program Services Furnished On or After January 1, 2024
(Rev. 12497; Issued: 02-08-24; Effective: 01-01-24; Implementation: 03-12-24)

As specified at 42 CFR 410.49, Medicare covers cardiac rehabilitation program services for beneficiaries who have experienced one or more of the following:

- An acute myocardial infarction within the preceding 12 months; or
- A coronary artery bypass surgery; or
- Current stable angina pectoris; or
- Heart valve repair or replacement; or
- Percutaneous transluminal coronary angioplasty (PTCA) or coronary stenting; or
- A heart or heart-lung transplant.
- Stable, chronic heart failure defined as patients with left ventricular ejection fraction of 35 percent or less and New York Heart Association (NYHA) class II to IV symptoms despite being on optimal heart failure therapy for at least 6 weeks, on or after February 18, 2014; or
- Other cardiac conditions as specified through a national coverage determination (NCD).

Cardiac rehabilitation programs must include all of the following components:

- Physician-prescribed exercise each day cardiac rehabilitation items and services are furnished;
- Cardiac risk factor modification, including education, counseling, and behavioral intervention at least once during the program, tailored to patients' individual needs;
- Psychosocial assessment;
- Outcomes assessment; and
- An individualized treatment plan detailing how components are utilized for each patient. The individualized treatment plan must be established, reviewed, and signed by a physician every 30 days.

Medicare Part B pays for CR in a physician's office or a hospital outpatient setting. All settings must have a physician or nonphysician practitioner immediately available and accessible for medical consultations and emergencies at all times when items and services are being furnished under the program. This provision is satisfied if the physician or nonphysician practitioner meets the requirements for direct supervision for physician office services, at 42 CFR 410.26, and for hospital outpatient services at 42 CFR 410.27. Note: Nonphysician practitioners are eligible to supervise CR effective January 1, 2024.

As specified at 42 CFR 410.49(f)(1), cardiac rehabilitation program sessions are limited to a maximum of 2 1-hour sessions per day for up to 36 sessions over up to 36 weeks, with the option for an additional 36 sessions over an extended period of time if approved by the Medicare contractor.

National Coverage Determination (NCD) for Cardiac Rehabilitation Programs for Chronic Heart Failure (20.10.1)
Effective Date of this Version 2/18/2014, Implementation Date 8/18/2014

The NCD was retired in April 2023. CMS periodically retires NCDs that no longer contain clinically pertinent and/or current information or no longer reflect current medical practice. In the absence of NCDs, coverage determinations are made by the Medicare Administrative Contractors (MACs) under section 1862(a)(1)(A) of the Social Security Act.

Local:

There is no local coverage determination on this topic.

(The above Medicare information is current as of the review date for this policy. However, the coverage issues and policies maintained by the Centers for Medicare & Medicare Services [CMS, formerly HCFA] are updated and/or revised periodically. Therefore, the most current CMS information may not be contained in this document. For the most current information, the reader should contact an official Medicare source.)

Related Policies

Intensive Cardiac Rehabilitation
Pulmonary Rehabilitation

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The articles reviewed in this research include those obtained in an Internet based literature search for relevant medical references through 4/1/24, the date the research was completed.

Joint BCBSM/BCN Medical Policy History

Policy Effective Date	BCBSM Signature Date	BCN Signature Date	Comments
6/25/02	6/25/02	6/25/02	Joint policy established
9/27/03	9/27/03	10/14/03	Routine maintenance
4/11/05	4/11/05	4/19/05	Routine maintenance
1/1/08	10/16/07	11/15/07	Routine maintenance
3/1/09	12/9/08	12/21/08	Routine maintenance
3/1/10	12/8/09	12/8/09	Routine maintenance
3/1/11	1/4/11	1/4/11	Routine maintenance
1/1/13	10/16/12	10/16/12	Routine maintenance; updated information under the Government Regulations section.
1/1/14	10/15/13	10/25/13	Routine maintenance
1/1/15	10/21/14	11/3/14	Routine maintenance, updated information under the Government Regulations section.
3/1/16	12/10/15	12/10/15	Routine maintenance
3/1/17	12/13/16	12/13/16	Routine maintenance
11/1/17	9/15/17	9/27/17	Routine maintenance Removed phase I from exclusions Added “documented within the last 12 months” to indications listed under inclusions
9/1/18	6/19/18	6/18/19	Routine maintenance
9/1/19	6/18/19		Routine maintenance
9/1/20	6/16/20		Routine maintenance
9/1/21	6/15/21		Routine maintenance. Added ref 1,15, 16
9/1/22	6/21/22		Routine maintenance Ref 19 added
11/1/22	8/16/22		Routine maintenance Ref 3 added (ls)
9/1/23	6/26/23		Routine maintenance (jf) Vendor Managed: NA

			Added new ref: 25-44 The association removed reference 17 and replaced it with an updated reference 36. Removed from description: Approximately 10-20% of hospitalized patients can have evidence of myocardial injury in the setting of acute COVID-19. Added to exclusion: Virtual cardiac rehabilitation is considered investigational
9/1/24	6/11/24		Routine maintenance (jf) Vendor Managed: NA Ref: Added: 12,22,23 o Removal from Exclusions: Virtual Cardiac Rehab o Post-acute sequelae of SARS-CoV-2 infection PICO added

Next Review Date: 2nd Qtr, 2025

BLUE CARE NETWORK BENEFIT COVERAGE
POLICY: CARDIAC REHABILITATION

I. Coverage Determination:

Commercial HMO (includes Self-Funded groups unless otherwise specified)	Covered; policy criteria apply
BCNA (Medicare Advantage)	See Government Regulations section.
BCN65 (Medicare Complementary)	Coinsurance covered if primary Medicare covers the service.

II. Administrative Guidelines:

- The member's contract must be active at the time the service is rendered.
- Coverage is based on each member's certificate and is not guaranteed. Please consult the individual member's certificate for details. Additional information regarding coverage or benefits may also be obtained through customer or provider inquiry services at BCN.
- The service must be authorized by the member's PCP except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Services must be performed by a BCN-contracted provider, if available, except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Payment is based on BCN payment rules, individual certificate and certificate riders.
- Appropriate copayments will apply. Refer to certificate and applicable riders for detailed information.
- CPT - HCPCS codes are used for descriptive purposes only and are not a guarantee of coverage.