



CLINICAL MEDICAL POLICY	
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Application:	All participating hospitals and providers
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DISCLAIMER

Gateway HealthSM (Gateway) medical policy is intended to serve only as a general reference resource regarding coverage for the services described. This policy does not constitute medical advice and is not intended to govern or otherwise influence medical decisions.

POLICY STATEMENT

Gateway HealthSM provides coverage under the medical-surgical benefits of the Company's Medicaid products for medically necessary outpatient and medically supervised Phase II cardiac rehabilitation programs. Phase III and phase IV cardiac rehabilitation programs are considered maintenance programs and considered not medically necessary.

This policy is designed to address medical necessity guidelines that are appropriate for the majority of individuals with a particular disease, illness or condition. Each person's unique clinical circumstances warrant individual consideration, based upon review of applicable medical records.

(Current applicable Pennsylvania HealthChoices Agreement Section V. Program Requirements, B. Prior Authorization of Services, 1. General Prior Authorization Requirements.)

DEFINITIONS

Prior Authorization Review Panel – A panel of representatives from within the Pennsylvania Department of Human Services who have been assigned organizational responsibility for the review, approval and denial of all PH-MCO Prior Authorization policies and procedures.

Cardiac Rehabilitation – The American Association of Cardiovascular and Pulmonary Rehabilitation and the American Heart Association have defined cardiac rehabilitation as coordinated, multifaceted interventions designed to optimize a cardiac patient’s physical, psychological, and social function, in addition to stabilizing, slowing, or even reversing the progression of the underlying atherosclerotic processes, thereby reducing morbidity and mortality.

METS – A measure of exercise intensity, formally known as a metabolic equivalent. METS are directly related to the intensity of physical activity and the amount of oxygen consumed. The larger the MET value, the more calories burnt.

PROCEDURES

This medical policy addresses cardiac rehabilitation services that are provided on an outpatient basis during the immediate post-discharge period. Services rendered at this time are considered Phase II Cardiac Rehabilitation Programs and are limited to ECG monitored programs.

There is strong scientific evidence on the efficacy of cardiac rehabilitation in adult patients. However, there is limited evidence in pediatric patients. This policy applies to adult patients. Cardiac rehabilitation requests for pediatric patient will be reviewed on a case-by-case basis. The case-by-case review will include the patient’s age, diagnosis, surgical procedure and acceptance into a pediatric cardiac rehabilitation program.

This policy does not address programs considered to be ‘intensive cardiac rehabilitation’, such as the Dean Ornish Program for Reversing Heart Disease and the Pritikin Program.

1. Cardiac rehabilitation is considered medically necessary according to the following:
 - A. Cardiac rehabilitation is considered medically necessary when the services are prescribed by the treating physician and initiated within 90 days of the cardiac event and completed within 12 months for any of the following conditions:
 - 1) Acute myocardial infarction (MI)/Acute coronary syndrome (ACS); OR
 - 2) Coronary artery bypass grafting (CABG); OR
 - 3) Heart or heart/lung transplantation; OR
 - 4) Percutaneous coronary intervention (PTCA, angioplasty, stents, atherectomy); OR
 - 5) Survivor of sudden cardiac death; OR
 - 6) Survivor of sustained ventricular tachycardia or fibrillation; OR
 - 7) Heart valve replacement or repair; OR
 - 8) Class III or IV congestive heart failure (CHF) which has failed to respond to pharmacotherapy, and the condition is interfering with the ability to perform age-related activities of daily living (ADLs); OR
 - 9) Coronary Artery Disease (CAD) with chronic stable angina pectoris which has failed to respond to pharmacotherapy and is interfering with the ability to perform age-related ADLs; OR
 - 10) Placement of ventricular assist device

B. The medically necessary frequency and duration of cardiac rehabilitation is determined by the patient's level of cardiac risk stratification:

1) High-risk patients with any of the following:

- a. Decrease in systolic blood pressure or 15 mm Hg or more with exercise; OR
- b. Exercise test limited to less than or equal to 5 METS; OR
- c. Marked exercise-induced ischemia, as indicated by either angina pain or 2 mm or more ST depression by electrocardiography (ECG); OR
- d. Recent myocardial infarction (less than 6 months) which was complicated by serious ventricular arrhythmia, cardiogenic shock, or CHF; OR
- e. Resting complex ventricular arrhythmia; OR
- f. Severely depressed left ventricular function (LVEF less than 30%); OR
- g. Survivor of sudden cardiac arrest; OR
- h. Ventricular arrhythmia appearing or increasing with exercise or occurring in the recovery phase of stress testing.

Cardiac rehabilitation programs for high-risk patients include:

- a. 18-36 sessions (e.g., 3 times a week for 12 weeks) of supervised exercise with continuous telemetry monitoring
- b. An individual outpatient exercise program that can be self-monitored and maintained
- c. Educational program for risk factor/stress reduction
- d. If no clinically significant arrhythmia is documented during the first 3 weeks of the cardiac rehabilitation program, the provider may have the patient complete the remaining portion without telemetry monitoring.

2) Intermediate-risk patients with any of the following:

- a. Exercise test limited to 6 to 9 METS; or
- b. Ischemic ECG response to exercise of less than 2 mm of ST depression; or
- c. Uncomplicated myocardial infarction, coronary artery bypass surgery, or angioplasty and has a post-cardiac event maximal function capacity of 8 METS or less on ECG exercise test.

Cardiac rehabilitation programs for intermediate-risk patients include:

- a. 12-24 sessions or less of exercise training without continuous ECG monitoring
- b. The program's goal is to determine an ongoing exercise program that is "self-administered."

3) Low-risk patients

Exercise test limited to greater than 9 METS

Cardiac rehabilitation program to include:

- a. 6-18 one-hour sessions involving risk factor reduction education and supervised exercise to show safety
- b. The program's goal is to define a home program.

Cardiac rehabilitation program sessions are limited to a maximum of two 1-hour sessions per day for up to 36 sessions. Medical Director's review is required for requests for greater than the recommended number of sessions above. Another qualifying cardiac event is required to start a new cardiac rehabilitation program.

C. The following components must be included in cardiac rehabilitation programs:

- 1) Physician-prescribed and physician-supervised exercise each day that cardiac rehabilitation services are provided;
- 2) Cardiac risk factors modification (e.g., nutritional counseling, assessing smoking status, history and control of diabetes or hypertension, lipid management, and weight management);
- 3) Psychosocial assessment;
- 4) Outcomes assessment;
- 5) Individualized treatment plan detailing how each of the above components are utilized. The individualized treatment plan must be established, reviewed, and signed by a physician every 30 days.

A comprehensive evaluation and cardiac risk assessment should be performed prior to the initiation of cardiac rehabilitation to evaluate the patient and determine an appropriate exercise program. In addition to a medical examination, the evaluation may include an electrocardiogram stress test. Additional stress testing may also be performed at the completion of the program.

Occupational and/or physical therapy are considered not medically necessary in conjunction with cardiac rehabilitation, unless the services are performed for an unrelated condition.

2. Contraindications

Contraindications for outpatient cardiac rehabilitation programs include: unstable angina, high blood pressure, left ventricular outflow tract obstruction, Grade 2 and Grade 3 AV block, myocarditis, active pericarditis, severe valvular disease, ventricular arrhythmias, aortic dissection, acute thrombophlebitis, pulmonary or systemic embolism, severe psychological disorders, acute systemic illness and/or fever, and severe mobility limitations.

3. When cardiac rehabilitation services are not covered

Cardiac rehabilitation Phase II services are not covered for conditions other than those listed above because the scientific evidence has not been established.

Phase III and Phase IV cardiac rehabilitation programs are not covered as these programs are self-directed and can be carried out without medical supervision.

4. Place of Service

The place of service for cardiac rehabilitation is ambulatory outpatient, physician office, or hospital outpatient setting.

All settings must have a physician immediately available and accessible for medical consultation and emergencies at all times when services are being furnished under the program.

All medical personnel necessary to conduct cardiac rehabilitation are trained in both basic and advanced life-support techniques.

The facility must have available the necessary cardiopulmonary emergency, diagnostic, and therapeutic life-saving equipment accepted by the medical community as medically necessary.

5. Post-payment Audit Statement

The medical record must include documentation that reflects the medical necessity criteria and is subject to audit by Gateway HealthSM at any time pursuant to the terms of your provider agreement.

CODING REQUIREMENTS

Procedure Codes

CPT Code	Description
93798	Physician or other qualified health care professional services for outpatient cardiac rehabilitation with continuous ECG monitoring (per session)

Diagnosis Codes

ICD-10 Codes	Description
I20.1	Angina pectoris with documented spasm
I20.8	Other forms of angina pectoris
I20.9	Angina pectoris, unspecified
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery
I21.09	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall
I21.11	ST elevation (STEMI) myocardial infarction involving right coronary artery
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery
I21.29	ST elevation (STEMI) myocardial infarction involving other sites
I21.3	ST elevation (STEMI) myocardial infarction involving of unspecified site
I21.4	Non-ST elevation (NSTEMI) myocardial infarction
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall
I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified sites
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris
I25.111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm
I25.118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris
I25.119	Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris
I25.2	Old myocardial infarction
I25.700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris
I25.701	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm
I25.708	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris
I25.709	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris

I25.710	Atherosclerosis of autologous coronary vein bypass graft(s), unspecified, with unstable angina
I25.711	Atherosclerosis of autologous vein coronary artery bypass graft(s), with unstable angina pectoris
I25.718	Atherosclerosis of autologous vein coronary artery bypass graft(s), with angina pectoris with documented spasm
I25.719	Atherosclerosis of autologous vein coronary artery bypass graft(s), with unspecified angina pectoris
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s), with unstable angina pectoris
I25.721	Atherosclerosis of autologous artery coronary artery bypass graft(s), with angina pectoris with documented spasm
I25.728	Atherosclerosis of autologous artery coronary artery bypass graft(s), with other forms of angina pectoris
I25.729	Atherosclerosis of autologous artery coronary artery bypass graft(s), with unspecified angina pectoris
I25.730	Atherosclerosis of nonautologous biological artery coronary artery bypass graft(s), with unstable angina
I25.731	Atherosclerosis of nonautologous biological artery coronary artery bypass graft(s), with angina
I25.738	Atherosclerosis of nonautologous biological artery coronary artery bypass graft(s), with other forms of angina pectoris
I25.739	Atherosclerosis of nonautologous biological artery coronary artery bypass graft(s), with unspecified angina pectoris
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina pectoris
I25.751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm
I25.758	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris
I25.759	Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris
I25.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina pectoris
I25.761	Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm
I25.768	Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris
I25.769	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified forms of angina pectoris
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris
I25.791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris
I25.799	Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris
I50.20	Unspecified systolic (congestive) heart failure

I50.21	Acute systolic (congestive) heart failure
I50.22	Chronic systolic (congestive) heart failure
I50.23	Acute on chronic systolic (congestive) heart failure
I50.30	Unspecified diastolic (congestive) heart failure
I50.31	Acute diastolic (congestive) heart failure
I50.32	Chronic diastolic (congestive) heart failure
I50.33	Acute on chronic diastolic (congestive) heart failure
I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.9	Heart failure, unspecified
Z48.21	Encounter for aftercare following heart transplant
Z48.280	Encounter for aftercare following heart-lung transplant
Z94.1	Heart transplant status
Z94.3	Heart and lungs transplant status
Z95.1	Presence of aortocoronary bypass graft
Z95.2	Presence of prosthetic heart valve
Z95.3	Presence of xenogeneic heart valve
Z95.4	Presence of other heart-valve replacement
Z95.5	Presence of coronary angioplasty implant and graft
Z95.812	Presence of fully implantable artificial heart
Z95.818	Presence of other cardiac implants and grafts
Z98.61	Coronary angioplasty status

REIMBURSEMENT

Participating facilities will be reimbursed per their Gateway HealthSM contract.

SUMMARY OF LITERATURE

Cardiovascular disorders are the leading cause of mortality and morbidity in the industrialized world and account for nearly 50% of all deaths annually. The Centers for Disease Control and Prevention reports that approximately 610,000 people die from heart disease in the United States each year, which is one in every four deaths. Every year, about 735,000 Americans have a heart attack. Of these heart attacks, 525,000 are first instances of heart attack, and 210,000 happen in people who have already had a heart attack.

Programs for cardiac rehabilitation were first introduced in the 1960s for patients who were recovering from an acute myocardial infarction. Concerns about the safety of unsupervised exercise after discharge led to the development of highly structured rehabilitation programs that were supervised by physicians and included electrocardiographic monitoring. Indications for outpatient cardiac rehabilitation were expanded to other cardiac patients, such as those who experience postoperative cardiac surgery and myocardial pathology, and patients in heart failure.

In 1995, the United States Public Health Service defined cardiac rehabilitation as a comprehensive, long-term program 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.

In the HF-ACTION clinical trial, 2331 patients with heart failure classes II-IV were randomized to exercise training (36 supervised sessions) and usual care versus usual care alone. This multicenter trial objective was to test the efficacy and safety of exercise training among patients with heart failure. The main outcome indicated that exercise training resulted in nonsignificant reduction in the primary end points of all-cause mortality or hospitalization and in key secondary clinical end points. After adjusting for highly prognostic predictors of the primary end point, exercise training was associated with modes significant reductions for both all-cause mortality or hospitalization and cardiovascular mortality or heart failure hospitalization. This trial was pivotal in the CMS decision to expand coverage of cardiac rehabilitation for Class IV heart failure.

In 2012, the American College of Physicians, American College of Cardiology Foundation, American Heart Association/American Association of Thoracic Surgery, Preventive Cardiovascular Nurses Association, and Society of Thoracic Surgeons published a joint guideline on management of stable ischemic heart disease. The guideline includes the following statement on cardiac rehabilitation: "Medically supervised exercise programs, i.e., cardiac rehabilitation and physician-directed home based programs, are recommended for at-risk patients at first diagnosis of stable ischemic heart disease."

In 2013, the American College of Cardiology Foundation and the American Heart Association published updated guidelines on the management of heart failure. These guidelines include the following Class IIa recommendation related to cardiac rehabilitation (Level of Evidence: B): "Cardiac rehabilitation can be useful in clinically stable patients with heart failure to improve functional capacity, exercise duration, HRQOL [health-related quality of life], and mortality."

Pediatric Cardiac Rehabilitation

While the beneficial effects of cardiac rehabilitation programs in adults are well known, there are very few clinical trials regarding the use of cardiac rehabilitation in pediatric patients.

In the Boston Pediatric Cardiac Rehab Study in 2005, a 12 week pediatric cardiac rehab study was conducted with 16 children ages 8 to 17. All 16 children who completed the program had heart surgery or a nonsurgical procedure, and 11 of the 16 had only one functional heart pumping chamber. At the 7 month follow up, it was found that the children who completed a twice weekly hour long sessions had significant sustained improvements in exercise function as well as improvement in behavior, self-esteem and emotional state. In addition, 15 of the 16 children had improved heart function, with the heart pumping more blood with each beat, delivering more oxygen.

Somarriba et al. (2008) reported on the effects of exercise rehabilitation for two children with dilated cardiomyopathy. These children underwent a structure exercise program that showed improvements in cardiovascular fitness and strength without deterioration in ventricular function. The authors recommend a careful and medically supervised approach for exercise in children with cardiomyopathy. It was noted that larger prospective studies are needed on the functional and metabolic responses for these children.

Classes of Heart Failure

New York Heart Association (NYHA) Functional Classification

Class	Description
Class I	Patients with cardiac disease but resulting in no limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea or angina pain.
Class II	Patients with cardiac disease resulting in slight limitation of physical activity. Patients are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, and dyspnea.
Class III	Patients with cardiac disease resulting in marked limitation of physical activity. Patients are comfortable at rest. Less than ordinary activity causes fatigue, palpitation, and dyspnea.
Class IV	Patients with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms of heart failure at rest. If any physical activity undertaken, discomfort increases.

Phases of Cardiac Rehabilitation

Phase	Description
Phase I	Inpatient rehabilitation, usually lasting for the duration of hospitalization for an acute coronary event or surgery. Phase I emphasizes a gradual, progressive approach to exercise and an education program that helps the patient understand the disease process, the rehabilitation process, and initial preventive efforts to slow the progression of disease.
Phase II	Outpatient electrocardiographically monitored: multifaceted outpatient rehabilitation, lasting from hospital discharge to 1-12 weeks later. Phase II emphasizes safe physical activity to improve conditioning with continued behavior modification aimed at smoking cessation, weight loss, healthy eating, and other factors to reduce disease risk.
Phase III	Supervised rehabilitation, lasting 6-12 months. Establishes a prescription for safe exercise that can be performed at home or in a community service facility, such as senior center, and continues to emphasize risk factor reduction. This program is self-directed, self-controlled/monitored exercise.
Phase IV	This is usually an indefinite program. The goal is to encourage lifelong adherence to the healthy habits established during Phase III. Follow-up visits can occur at 6-12 month intervals. Blood pressure and pulse measurement, serum lipid levels, and even repeat maximal exercise tolerance tests can provide useful feedback to the patient and indicate areas that may require lifestyle changes to minimize coronary

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Policy History

Date	Activity
05/12/2017	Initial policy developed
05/17/2017	QI/UM Committee Approval
07/14/2017	PARP Approval
09/15/2017	Provider effective date