CLINICAL MEDICAL POLICY	
Policy Name:	Cardiovascular Nuclear Medicine (L35083)
Policy Number:	MP-055-MC-PA
Responsible Department(s):	Medical Management
Provider Notice Date:	05/01/2018
Issue Date:	06/01/2018
Effective Date:	06/01/2018
Annual Approval Date:	03/21/2019
Revision Date:	N/A
Products:	Pennsylvania Medicare Assured
Application:	All participating and nonparticipating hospitals and providers
Page Number(s):	1 of 16

DISCLAIMER

Gateway Health℠ (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 Health℠ may provide coverage under the medical-surgical of the Company's Medicare products for medically necessary cardiovascular nuclear medicine.

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.

PROCEDURES

Coverage Indications, Limitations, and/or Medical Necessity

Notice: It is not appropriate to bill Medicare for services that are not covered (as described by this entire medical policy) as if they are covered. When billing for non-covered services, use the appropriate modifier.

Compliance with the provisions in this policy may be monitored and addressed through post-payment data analysis and subsequent medical review audits.

History/Background and/or General Information

Cardiovascular nuclear imaging employs non-invasive techniques to assess alterations in coronary artery flow as well as ventricular function. A variety of radionuclides may be used.

The specific imaging technique (perfusion versus ventricular function) and the reason for the imaging determine what radionuclide agent is employed. In its simplest terms, a perfusion study utilizes an imaging isotope agent that reflects myocardial blood flow and, dependent on the agent and timing of image acquisition, the presence of scar or ischemia. Ventricular function studies utilize specific imaging isotopes to outline the borders of the left ventricular endocardium or to identify the ventricular blood pool independent of the surrounding myocardium. The motion of the left ventricle is synchronized with the electrocardiogram to generate wall motion and ejection fraction information. Both modalities may use rest and exercise images.

In instances where an exercise test cannot be performed, provocative agents may be used to alter coronary flow, thereby unmasking a suspected lesion in the coronary bed. The acquisition of the images may be planar (single plane) or by multiple planes with computer integration, Single-Photon Emission Computer Tomography (SPECT).

Covered Indications:

Radionuclide imaging may be employed in the assessment of a variety of conditions associated with primary coronary artery disease. Some of these conditions include:

1. Assessment of the functional and prognostic importance of angina, chest pain, or angina equivalent symptoms.
2. Diagnostic evaluation of patients with chest pain and uninterpretable or equivocal ECG changes occurring naturally or caused by drugs, bundle branch block, or left ventricular hypertrophy.
3. Risk assessment of re-evaluation of disease in patients who are asymptomatic or have stable symptoms, with known atherosclerotic heart disease on catheterization or SPECT perfusion imaging, who have not had a revascularization procedure within the past two years or greater than two years since last imaging study.
4. Detection of coronary artery disease in patients, without chest pain syndrome, with new-onset of diagnosed heart failure or left ventricular systolic dysfunction.
5. Evaluation of ischemic versus non-ischemic cardiomyopathy when cardiac catheterization /coronary angiography is not planned.
6. Evaluation of myocardial perfusion viability or function before and more than or equal to 5 years after coronary artery bypass surgery or greater than or equal to 2 years after percutaneous perfusion procedures, unless new clinical signs or symptoms necessitate reevaluation.
7. Quantification and surveillance of myocardial infarction and prognostication in patient with infarction.

8. Preoperative assessment for non-cardiac surgery, when used to determine risk for surgery or perioperative management in:
    A. Patients with minor or intermediate clinical risk predictors and poor functional capacity.
    B. Patients with intermediate or high likelihood of coronary heart disease, or patients with poor functional capacity undergoing high risk non-cardiac surgery.

   The ACA/AHA 2014 Guidelines on Perioperative Cardiovascular Evaluation and Care for Non-Cardiac Surgery (*JACC* 2014) provide the following information regarding categorization of surgical risk. They include:
    - High risk/intermediate risk surgery: aortic and peripheral vascular surgery, intraperitoneal and intrathoracic surgery, carotid endarterectomy, head and neck surgery, orthopedic surgery, and prostate surgery;
    - Low risk surgery: endoscopic procedure, superficial surgery, cataract surgery, breast surgery, ambulatory surgery;
    - The Guidelines establish poor functional capacity as less than 4 METS;
    - Utilization of these tests is based on the presence of multiple risk factors, the level of functional capacity, the risk of surgery proposed, and the likelihood that the results of the cardiac testing would change the management.

9. Evaluation of ventricular function in patients with non-ischemic myocardial disease.
10. Evaluation of patients in whom an accurate measure of the ejection fraction is needed to make a determination of whether to implant a defibrillator or biventricular pacemaker.
11. Evaluation of patient receiving chemotherapeutic drugs which are potentially cardiotoxic (e.g., Adriamycin, Herceptin).

First-pass studies will be considered medically necessary only when information sought is immediately relevant to the management of the patient's clinical condition and has not been previously obtained or likely to be obtained from other planned tests such as echocardiography or equilibrium gated blood pool studies. First-pass studies may be indicated for the assessment and identification of shunts and are more likely to be done in suspected congenital events. It is noted that occasionally first-pass studies and gated blood pool studies may be additive when RVEF is needed on the same day.

Infarct Avid Scintigraphy is indicated in patients in whom it is not possible to make a definitive diagnosis of myocardial infarction by EKG or enzyme testing.

Patient selection should be based on clinical grounds:
- Patients with a high pretest probability of disease are not usually candidates for a study for diagnostic purposes, though the size and reversibility of a defect and its functional consequences may be required for clinical decision-making.
- Patients with a moderate probability of disease benefit the most from the study when the diagnosis is in question.
- Selection of tests should be made within the context of other tests scheduled and previously performed so that the anticipated information obtained is unique and not redundant.
- Redundant testing where multiple tests are done revealing the same information is not medically necessary and should be appropriately denied if reviewed.

Limitations

The following are considered not reasonable and necessary and therefore will be denied:

1. Given the limitations of uptake, low photon energy and redistribution, it would not be considered reasonable and necessary for the cardiac blood pool procedures (codes) and perfusion imaging procedures (codes) to be performed on the same date of service.
2. Cardiac blood pool imaging studies are described by the codes 78472, 78473, 78481, 78483, 78494, and 78496.* It is not considered reasonable and necessary for more than one code from the series (78472, 78473, 78481, 78483, 78494) to be reported on a single date of service.
   * Providers should refer to the applicable Current Procedural Terminology (CPT) Manual to assist with proper reporting of add-on code 78496.
3. All cardiovascular nuclear tests and stress tests must be referred by a physician or a qualified non-physician (i.e., a Nurse Practitioner (NP) or Physician Assistant (PA)).
4. All stress tests must be performed under the direct supervision of a physician (even in a facility). The nuclear test components must be performed under the general supervision of a physician.
5. Myocardial perfusion studies performed based on the presence of risk factors in the absence of cardiac symptoms, cardiac abnormalities on physical examination, or abnormalities on cardiac testing (e.g., electrocardiographic tests, echocardiography, treadmill stress testing, etc.) will be considered screening and denied as not covered by Medicare.
6. Tests that are anticipated to provide information duplicative of another test already performed will be denied as not medically necessary.
7. Tests performed when the results would not be anticipated to influence medical management decisions will be denied as not medically necessary.
8. Myocardial perfusion studies performed subsequent to a diagnostic myocardial PET scan will be denied as not medically necessary.
9. Infarct avid scintigraphy will be denied if the diagnosis of myocardial infarction has already been confirmed by enzymes or EKG.
10. Tests performed unrelated to changes in a patient's signs or symptoms, or for immediate preoperative screening without signs or symptoms, will be denied as medically unnecessary. Please see preoperative testing indications above.
11. Tests performed for risk assessment prior to high risk non-cardiac surgery in asymptomatic patients within one year following normal catheterization or non-invasive test will be considered medically unnecessary and denied.
12. Tests performed for preoperative evaluation in patients undergoing low-risk surgery will be denied.

OTHER COMMENTS

For claims submitted to the Part A MAC: this coverage determination also applies within states outside the primary geographic jurisdiction with facilities that have nominated Novitas to process their claims.

Bill type codes only apply to providers who bill these services to the Part A MAC. Bill type codes do not apply to physicians, other professionals, and suppliers who bill these services to the carrier or Part B MAC.

Limitation of liability and refund requirements apply when denials are likely, whether based on medical necessity or other coverage reasons. The provider/supplier must notify the beneficiary in writing prior to rendering the service if the provider/supplier is aware that the test, item, or procedure may not be covered by Medicare. The limitation of liability and refund requirements do not apply when the test, item,

or procedure is statutorily excluded, has no Medicare benefit category, or is rendered for screening purposes.

Notice: This medical policy imposes diagnosis limitations that support diagnosis to procedure code automated denials. However, services performed for any given diagnosis must meet all of the indications and limitations stated in this policy, the general requirements for medical necessity as stated in CMS payment policy manuals, any and all existing CMS national coverage determinations, and all Medicare payment rules.

As published in CMS IOM 100-08, Chapter 13, Section 13.5.1, in order to be covered under Medicare, a service shall be reasonable and necessary. When appropriate, contractors shall describe the circumstances under which the proposed LCD for the service is considered reasonable and necessary under Section 1862(a)(1)(A). Contractors shall consider a service to be reasonable and necessary if the contractor determines that the service is:

- Safe and effective.
- Not experimental or investigational (exception: routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000, that meet the requirements of the Clinical Trials NCD are considered reasonable and necessary).
- Appropriate, including the duration and frequency that is considered appropriate for the service, in terms of whether it is:
    - Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member.
    - Furnished in a setting appropriate to the patient's medical needs and condition.
    - Ordered and furnished by qualified personnel.
    - One that meets, but does not exceed, the patient's medical needs.
    - At least as beneficial as an existing and available medically appropriate alternative.

The redetermination process may be utilized for consideration of services performed outside of the reasonable and necessary requirements in this medical policy.

Post-payment Audit Statement
The medical record must include documentation that reflects the medical necessity criteria and is subject to audit by Gateway Health℠ at any time pursuant to the terms of your provider agreement.

COVERAGE DETERMINATION

Gateway Health℠ follows the coverage determinations made by CMS as outlined in either the national coverage determinations (NCD) or the state-specific local carrier determination (LCD).

National Coverage Determination
There is no NCD for cardiovascular nuclear medicine.
https://www.cms.gov/medicare-coverage-database/indexes/ncd-alphabetical-index.aspx?bc=BAAAAAAAAAAA

For Pennsylvania, please use the following link for a list of Novitas Solutions LCDS: https://www.novitas-solutions.com/webcenter/portal/MedicareJL/pagebyid?contentId=00024370&_afrLoop=257850616639 7748#!%40%40%3F_afrLoop%3D2578506166397748%26centerWidth%3D100%2525%26contentId%3D0

0024370%26leftWidth%3D0%2525%26rightWidth%3D0%2525%26showFooter%3Dfalse%26showHeader%3Dfalse%26_adf.ctrl-state%3D1bjk7lgvhe_109

There is a Novitas Solutions LCD L35083 for cardiovascular nuclear medicine available at the following link:
https://www.cms.gov/medicare-coverage-database/details/lcd-details.aspx?LCDId=35083&ver=66&name=314*1&UpdatePeriod=749&bc=AAAAEAAAAAAAAA%3d%3d&

CODING REQUIREMENTS

Bill Type Codes
Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type, and the policy should be assumed to apply equally to all claims.

- 011x Hospital Inpatient (Including Medicare Part A)
- 012x Hospital Inpatient (Medicare Part B only)
- 013x Hospital Outpatient
- 018x Hospital - Swing Beds
- 021x Skilled Nursing - Inpatient (Including Medicare Part A)
- 071x Clinic - Rural Health
- 085x Critical Access Hospital

Revenue Codes
Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances, Revenue Codes are purely advisory. Unless specified in the policy, services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code, and the policy should be assumed to apply equally to all Revenue Codes.

Note: The contractor has identified the Bill Type and Revenue Codes applicable for use with the CPT/HCPCS codes included in this medical policy. Providers are reminded that not all CPT/HCPCS codes listed can be billed with all Bill Type and/or Revenue Codes listed. CPT/HCPCS codes are required to be billed with specific Bill Type and Revenue Codes. Providers are encouraged to refer to the CMS Internet-Only Manual (IOM) Pub. 100-04, *Medicare Claims Processing Manual,* for further guidance.

- 032X Radiology - Diagnostic - General Classification
- 0333 Radiology - Therapeutic and/or Chemotherapy Administration - Radiation Therapy
- 034X Nuclear Medicine - General Classification
- 035X CT Scan - General Classification
- 049X Ambulatory Surgical Care - General Classification
- 061X Magnetic Resonance Technology (MRT) - General Classification

Diagnoses that Support Medical Necessity
The following ICD-10-CM code may be used as a dual diagnosis when other covered ICD-10-CM diagnosis codes are used.

T45.1X5	Adverse effect of antineoplastic and immunosuppressive drugs

Note: Use of this code will provide further clarification of the need for the procedure, but does **not** affect coverage.

Covered Procedure Codes

CPT Codes	Description
78451	Ht muscle image spect sing
78452	Ht muscle image spect mult
78453	Ht muscle image planar sing
78454	Ht musc image planar mult
78472	Gated heart planar single
78473	Gated heart multiple
78481	Heart first pass single
78483	Heart first pass multiple
78491	Heart image (pet) single
78492	Heart image (pet) multiple
78494	Heart image spect
78496	Heart first pass add-on
HCPCS Codes	**Description**
A4641	Radiopharm dx agent noc
A9500	Tc99m sestamibi
A9501	Technetium tc-99m teboroxime
A9502	Tc99m tetrofosmin
A9505	Tl201 thallium
A9512	Tc99m pertechnetate
A9538	Tc99m pyrophosphate
A9560	Tc99m labeled rbc
J0153	Adenosine inj 1mg
J0395	Arbutamine hcl injection
J1245	Dipyridamole injection
J1250	Inj dobutamine hcl/250 mg
J2785	Regadenoson injection

ICD-10 Codes that Support Medical Necessity

Group I Paragraph

It is the provider's responsibility to select codes carried out to the highest level of specificity and selected from the ICD-10-CM code book appropriate to the year in which the service is rendered for the claim(s) submitted.

Note: The ICD-10-CM diagnosis codes listed in this medical policy do **not** apply to CPT/HCPCS codes A4641, A9500, A9501, A9502, A9505, A9512, A9538, A9560, J0153, J0395, J1245, J1250, J2785, and 93015-93018.

Medicare is establishing the following limited coverage for **Myocardial Perfusion with or without Functional Studies** as defined in **CPT/HCPCS codes 78451, 78452, 78453, 78454, 78472, 78473, 78481, and 78483.**

Group 1 Covered Diagnosis Codes:

ICD-10 Codes	Description
I01.1	Acute rheumatic endocarditis
I01.2	Acute rheumatic myocarditis
I05.0	Rheumatic mitral stenosis
I05.1	Rheumatic mitral insufficiency
I05.2	Rheumatic mitral stenosis with insufficiency
I05.8	Other rheumatic mitral valve diseases
I05.9	Rheumatic mitral valve disease, unspecified
I06.0	Rheumatic aortic stenosis
I06.1	Rheumatic aortic insufficiency
I06.2	Rheumatic aortic stenosis with insufficiency
I06.8	Other rheumatic aortic valve diseases
I06.9	Rheumatic aortic valve disease, unspecified
I07.0	Rheumatic tricuspid stenosis
I07.1	Rheumatic tricuspid insufficiency
I07.2	Rheumatic tricuspid stenosis and insufficiency
I07.8	Other rheumatic tricuspid valve diseases
I07.9	Rheumatic tricuspid valve disease, unspecified
I08.0	Rheumatic disorders of both mitral and aortic valves
I08.1	Rheumatic disorders of both mitral and tricuspid valves
I08.2	Rheumatic disorders of both aortic and tricuspid valves
I08.3	Combined rheumatic disorders of mitral, aortic and tricuspid valves
I08.8	Other rheumatic multiple valve diseases
I08.9	Rheumatic multiple valve disease, unspecified
I09.0	Rheumatic myocarditis
I09.1	Rheumatic diseases of endocardium, valve unspecified
I09.81	Rheumatic heart failure
I09.89	Other specified rheumatic heart diseases
I20.0	Unstable angina
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 of unspecified site
I21.4	Non-ST elevation (NSTEMI) myocardial infarction
I21.9	Acute myocardial infarction, unspecified
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 site
I23.7	Postinfarction angina
I23.8	Other current complications following acute myocardial infarction
I24.0	Acute coronary thrombosis not resulting in myocardial infarction
I24.1	Dressler's syndrome
I24.8	Other forms of acute ischemic heart disease
I24.9	Acute ischemic heart disease, unspecified
I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
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
I25.3	Aneurysm of heart
I25.41	Coronary artery aneurysm
I25.42	Coronary artery dissection
I25.5	Ischemic cardiomyopathy
I25.6	Silent myocardial ischemia
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 - I25.711	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris - Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.718 - I25.721	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris - Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.728 - I25.731	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris - Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris

I25.739	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina
I25.751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm
I25.758 - I25.761 -	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris - 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 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
I25.810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris
I25.811	Atherosclerosis of native coronary artery of transplanted heart without angina pectoris
I25.812	Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris
I25.82	Chronic total occlusion of coronary artery
I25.83	Coronary atherosclerosis due to lipid rich plaque
I25.84	Coronary atherosclerosis due to calcified coronary lesion
I25.89	Other forms of chronic ischemic heart disease
I25.9	Chronic ischemic heart disease, unspecified
I26.09	Other pulmonary embolism with acute cor pulmonale
I27.0	Primary pulmonary hypertension
I27.81	Cor pulmonale (chronic)
I27.82	Chronic pulmonary embolism
I27.9	Pulmonary heart disease, unspecified
I33.0	Acute and subacute infective endocarditis
I34.0	Nonrheumatic mitral (valve) insufficiency
I34.1	Nonrheumatic mitral (valve) prolapse
I34.2	Nonrheumatic mitral (valve) stenosis
I34.8	Other nonrheumatic mitral valve disorders
I34.9	Nonrheumatic mitral valve disorder, unspecified
I35.0	Nonrheumatic aortic (valve) stenosis
I35.1	Nonrheumatic aortic (valve) insufficiency
I35.2	Nonrheumatic aortic (valve) stenosis with insufficiency
I35.8	Other nonrheumatic aortic valve disorders

I35.9	Nonrheumatic aortic valve disorder, unspecified
I36.0	Nonrheumatic tricuspid (valve) stenosis
I36.1	Nonrheumatic tricuspid (valve) insufficiency
I36.2	Nonrheumatic tricuspid (valve) stenosis with insufficiency
I36.8	Other nonrheumatic tricuspid valve disorders
I36.9	Nonrheumatic tricuspid valve disorder, unspecified
I37.0	Nonrheumatic pulmonary valve stenosis
I37.1	Nonrheumatic pulmonary valve insufficiency
I37.2	Nonrheumatic pulmonary valve stenosis with insufficiency
I37.8	Other nonrheumatic pulmonary valve disorders
I37.9	Nonrheumatic pulmonary valve disorder, unspecified
I38	Endocarditis, valve unspecified
I39	Endocarditis and heart valve disorders in diseases classified elsewhere
I42.0	Dilated cardiomyopathy
I42.1	Obstructive hypertrophic cardiomyopathy
I42.2	Other hypertrophic cardiomyopathy
I42.3	Endomyocardial (eosinophilic) disease
I42.4	Endocardial fibroelastosis
I42.5	Other restrictive cardiomyopathy
I42.6	Alcoholic cardiomyopathy
I42.7	Cardiomyopathy due to drug and external agent
I42.8	Other cardiomyopathies
I46.9	Cardiac arrest, cause unspecified
I47.0	Re-entry ventricular arrhythmia
I47.1	Supraventricular tachycardia
I47.2	Ventricular tachycardia
I48.0	Paroxysmal atrial fibrillation
I48.1	Persistent atrial fibrillation
I48.2	Chronic atrial fibrillation
I48.91	Unspecified atrial fibrillation
I49.01	Ventricular fibrillation
I49.02	Ventricular flutter
I49.2	Junctional premature depolarization
I50.1	Left ventricular failure, unspecified
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
I50.810	Right heart failure, unspecified
I50.811	Acute right heart failure
I50.812	Chronic right heart failure
I50.813	Acute on chronic right heart failure
I50.814	Right heart failure due to left heart failure
I50.82	Biventricular heart failure
I50.83	High output heart failure
I50.84	End stage heart failure
I50.89	Other heart failure
I50.9	Heart failure, unspecified
I51.0	Cardiac septal defect, acquired
I51.1	Rupture of chordae tendineae, not elsewhere classified
I51.2	Rupture of papillary muscle, not elsewhere classified
I51.3	Intracardiac thrombosis, not elsewhere classified
I51.4	Myocarditis, unspecified
I51.5	Myocardial degeneration
I51.7	Cardiomegaly
I51.81	Takotsubo syndrome
I51.89	Other ill-defined heart diseases
Q24.5	Malformation of coronary vessels
R06.02	Shortness of breath
R07.2	Precordial pain
R07.82	Intercostal pain
R07.89	Other chest pain
R07.9	Chest pain, unspecified
R55	Syncope and collapse
R94.31	Abnormal electrocardiogram [ECG] [EKG]
T82.817A	Embolism due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.827A	Fibrosis due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.837A	Hemorrhage due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.847A	Pain due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.857A	Stenosis of other cardiac prosthetic devices, implants and grafts, initial encounter
T82.867A	Thrombosis due to cardiac prosthetic devices, implants and grafts, initial encounter
T82.897A	Other specified complication of cardiac prosthetic devices, implants and grafts, initial encounter
T82.9XXA	Unspecified complication of cardiac and vascular prosthetic device, implant and graft, initial encounter
T86.20	Unspecified complication of heart transplant

T86.21	Heart transplant rejection
T86.22	Heart transplant failure
T86.23	Heart transplant infection
T86.290	Cardiac allograft vasculopathy
T86.298	Other complications of heart transplant
T86.30	Unspecified complication of heart-lung transplant
T86.31	Heart-lung transplant rejection
T86.32	Heart-lung transplant failure
T86.33	Heart-lung transplant infection
T86.39	Other complications of heart-lung transplant
Z01.810*	Encounter for preprocedural cardiovascular examination
Z94.1	Heart transplant status

Group 1 Medical Necessity ICD-10 Codes Asterisk Explanation:
*Use ICD-10-CM code Z01.810 for those tests which were performed to evaluate pre-operative risk (see Indications section above) but for whom the test was negative. (A positive test should be coded with the results of the test.)

Group 2 Paragraph
Medicare is establishing the following limited coverage for **Cardiac Blood Pool Studies** through **CPT codes 78472, 78473, 78481, 78483, 78494, and 78496.**

Group 2 Covered Diagnosis Codes:

ICD-10 Codes	Description
I50.21 - I50.23*	Acute systolic (congestive) heart failure - Acute on chronic systolic (congestive) heart failure
I50.41 - I50.43*	Acute combined systolic (congestive) and diastolic (congestive) heart failure - Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
Z01.30*	Encounter for examination of blood pressure without abnormal findings
Z01.31*	Encounter for examination of blood pressure with abnormal findings
Z08*	Encounter for follow-up examination after completed treatment for malignant neoplasm
Z09*	Encounter for follow-up examination after completed treatment for conditions other than malignant neoplasm
Z51.11	Encounter for antineoplastic chemotherapy
Z51.12	Encounter for antineoplastic immunotherapy
Z51.81*	Encounter for therapeutic drug level monitoring

Group 2 Medical Necessity ICD-10 Codes Asterisk Explanation:
*CHEMOTHERAPY: Report Z01.30-Z01.31 when the testing is performed as a BASELINE STUDY before chemotherapy; Report Z51.81 for SUBSEQUENT MONITORING while the patient is receiving chemotherapy; and Report Z08 and Z09 for testing when CHEMOTHERAPY IS COMPLETED.

*DEVICE PLACEMENT: Report ICD-10 codes I50.21-I50.23 and I50.41-I50.43 when using to support medical necessity only performed to calculate ejection fraction in those patients being actively considered for

defibrillator or biventricular pacemaker placement, where ejection fraction is the determining factor in the decision.

Group 3 Paragraph

Medicare is establishing the following limited coverage for **Infarct Avidity Studies** only through **CPT codes 78466, 78468, and 78469.**

Group 3 Covered Diagnosis Codes:

ICD-10 Codes	Description
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 of unspecified site
I21.4	Non-ST elevation (NSTEMI) myocardial infarction
I21.9	Acute myocardial infarction, unspecified
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site
I25.82	Chronic total occlusion of coronary artery
R07.2	Precordial pain
R07.82	Intercostal pain
R07.9	Chest pain, unspecified
R94.31	Abnormal electrocardiogram [ECG] [EKG]

ICD-10 Codes that DO NOT Support Medical Necessity

Group 1 Paragraph:

All those not listed under the "ICD-10 Codes that Support Medical Necessity" section of this policy.

Group 1 Codes: N/A

REIMBURSEMENT

Participating facilities will be reimbursed per their Gateway Health℠ contract.

GENERAL INFORMATION

Associated Information

Documentation Requirements

1. All documentation must be maintained in the patient's medical record and made available to the contractor upon request.

2. Every page of the record must be legible and include appropriate patient identification information (e.g., complete name, dates of service(s)). The documentation must include the legible signature of the physician or non-physician practitioner responsible for and providing the care to the patient.
3. The submitted medical record must support the use of the selected ICD-10-CM code(s). The submitted CPT/HCPCS code must describe the service performed.
4. Medical records must substantiate the medical necessity of the services, including a clinical diagnosis and the specific reason for the study.
5. All segments of the service must have a formal interpretation and report.
6. Requested records must be accompanied by a copy of the formal report and the reason for the referral for the test.
7. The referral order must be kept on file in the patient's medical record.
8. When HCPCS procedure code A9505 is submitted with CPT procedure codes 78451, 78452, 78453, or 78454, the formal report must indicate that the laboratory is equipped with at least a double-headed camera as well as the appropriate software to complete the study satisfactorily.
9. When CPT code 78472 and add-on code 78496 are submitted with perfusion codes 78451, 78452, 78453, 78454, 78466, 78468, or 78469, the formal reports must document that simultaneous cardiac function studies using the first-pass technique were performed and the laboratories are equipped to perform such studies.
10. When billing for the purchase of radiopharmaceutical(s), a copy of the bill indicating the dosage administered, unit price per dose, name, and total charge of the radioactive drug must be made available to Medicare upon request.
11. When requesting a written redetermination (formerly appeal), providers must include all relevant documentation with the request.

POLICY SOURCE(S)

Contractor is not responsible for the continued viability of websites listed.

2014 ACC/AHA Guideline on Perioperative Cardiovascular Evaluation and Management of Patients Undergoing Non-cardiac Surgery. A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (http://circ.ahajournals.org/content/130/24/e278).

"Cardiovascular Nuclear Medicine," TrailBlazer LCD, (00400) L18299, (00900) L18307.

"Cardiovascular Nuclear Medicine," Noridian Administrative Services, LLC LCD, (CO) L10080).

"Myocardial Perfusion Testing," Arkansas BlueCross BlueShield (Pinnacle) LCD, (NM, OK) L12493 and L12494.
Other Contractor Policies
Contractor Medical Directors

Bibliography
N/A

Policy History

Date	Activity
02/23/2018	Initial policy developed
03/21/2018	QI/UM Committee approval
06/01/2018	Provider effective date