

<b>Case Number:</b>	CM15-0160787		
<b>Date Assigned:</b>	08/27/2015	<b>Date of Injury:</b>	01/08/1990
<b>Decision Date:</b>	09/29/2015	<b>UR Denial Date:</b>	07/31/2015
<b>Priority:</b>	Standard	<b>Application Received:</b>	08/17/2015

### HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to an expert reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. He/she has been in active clinical practice for more than five years and is currently working at least 24 hours a week in active practice. The expert reviewer was selected based on his/her clinical experience, education, background, and expertise in the same or similar specialties that evaluate and/or treat the medical condition and disputed items/Service. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

The Expert Reviewer has the following credentials:  
 State(s) of Licensure: Tennessee, Florida, Ohio  
 Certification(s)/Specialty: Surgery, Surgical Critical Care

### CLINICAL CASE SUMMARY

The expert reviewer developed the following clinical case summary based on a review of the case file, including all medical records:

The injured worker is an 83 year old male who sustained an industrial injury on 01-08-1990. Mechanism of injury was not found in documentation provided but the heart is an accepted body part. Diagnoses include coronary artery disease, inferior wall myocardial infarction, coronary artery bypass graft x 2, malignant hypertensive heart disease without failure, and chronic ischemic heart disease. Treatment to date has included diagnostic studies, medications, and status post coronary artery bypass graft x 2. Current medications include Lisinopril, Lipitor, Finasteride, and ASA. Persantine SPECT perfusion imaging showed an ejection fraction of 52%, no ischemia, an 11% region of inferior and inferoseptal myocardium with fixed mildly decreased radionuclide uptake base and mild inferoseptal regional in the distribution of the right coronary artery. On 10-28-2014, an echocardiogram showed small infero-basal infarction with scar in the distribution of the RCA, ejection fraction of 51%, left ventricular diastolic dysfunction, mild aortic, mitral and tricuspid regurgitation, and left and right atrial enlargement. A physician progress note dated 07-23-2015 documents the injured worker complains of being very tired. He complains of sore bones and constipation. He has right shoulder pain. Ejection fraction is 51%. Several documents within the submitted medical records are difficult to decipher. The treatment plan includes Duplex Carotid Arteries, Qty 1. Treatment requested is for Treadmill Stress test, Qty 1, Echocardiogram, Qty 1, Cardiolute Multiple Sets, Qty 1, and Cardiolute Isotope, Qty 1.

### IMR ISSUES, DECISIONS AND RATIONALES

The Final Determination was based on decisions for the disputed items/services set forth below:

**Cardiolite Multiple Sets, Qty 1: Upheld**

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation National Heart, Lung & Blood Institute/ National Institutes of Health - Stress testing.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation American College of Cardiology/American Heart Association Clinical Competence Statement on Stress Testing: A Report of the American College of Cardiology/American Heart Association/American College of Physicians-American Society of Internal Medicine Task Force on Clinical Competence, *Circulation*. 2000; 102: 1726-1738 doi: 10.1161/01.CIR.102.14.1726.

**Decision rationale:** There is not sufficient clinical information provided to justify the medical necessity of testing for this patient. The California MTUS guidelines, ACOEM Guidelines and the Occupational Disability Guidelines (ODG) do not address this topic. Cardiolite is a nuclear radioactive isotope termed Technetium Tc99m Sestamibi. Uptake of the isotope into the myocardium can be visualized using a nuclear scanner. When combined with stress either through exercise or use of a pharmacological agent, the Cardiolite scan helps determine if the ischemic segments are present within the heart muscle. The guidelines from the American College of Cardiology state that Cardiolite stress testing is for detecting coronary artery disease by localizing myocardial ischemia (reversible defects) and infarction (non-reversible defects), in evaluating myocardial function and developing information for use in patient management decisions. The patient had a Cardiolite stress test less than 1 year ago. The study was normal for the patient with no evidence of new ischemic defects. On physical exam, the patient endorsed being tired but did not have any signs or symptoms or unstable angina. In this clinical situation, a repeat test is not warranted. Therefore, based on the submitted medical documentation, the request for multiple sets of Cardiolite stress testing is not medically necessary.

**Treadmill Stress test, Qty 1: Upheld**

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation National Heart, Lung & Blood Institute/ National Institutes of Health - Stress testing.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Diabetes, hypertension treatment.

**Decision rationale:** There is not sufficient clinical information provided to justify the medical necessity of cardiac treadmill testing for this patient. The California MTUS guidelines and the ACOEM Guidelines do not address the topic of cardiac treadmill studies. The Occupational Disability Guidelines (ODG) states that Cardiac Treadmill testing is a type of cardiac stress test used to measure the heart's ability to respond to external stress in a controlled clinical

environment. This test can be used to diagnose ischemic heart disease. Stress cardiac imaging is not recommended for asymptomatic, low-risk patients as part of their routine care. Unless high-risk markers are present, such as diabetes in patients aged over 40, peripheral artery disease, or a risk of coronary heart disease greater than 2 percent yearly, most health societies do not recommend the test as a routine procedure. This patient had an echo, which showed no change from prior studies 6 months ago. On physical exam, the patient reported that he was tired but otherwise did not have any signs or symptoms indicative of unstable cardiac disease. He also had had a cardiolute stress test less than 1 year ago which did not show new acute ischemic changes; only old perfusion defects were demonstrated. In this clinical situation, a treadmill stress test is not warranted. Therefore, based on the submitted medical documentation, the request for cardiac treadmill testing is not medically necessary.

### **Cardiolite Isotope, Qty 1: Upheld**

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation National Heart, Lung & Blood Institute/ National Institutes of Health - Stress testing.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation American College of Cardiology/American Heart Association Clinical Competence Statement on Stress Testing: A Report of the American College of Cardiology/American Heart Association/American College of Physicians-American Society of Internal Medicine Task Force on Clinical Competence , Circulation. 2000; 102: 1726-1738 doi: 10.1161/01.CIR.102.14.1726.

**Decision rationale:** There is not sufficient clinical information provided to justify the medical necessity of Cardiolite isotope for Cardiolite testing for this patient. The California MTUS guidelines, ACOEM Guidelines and the Occupational Disability Guidelines (ODG) do not address this topic. Cardiolite is a nuclear radioactive isotope termed Technetium Tc99m Sestamibi. Uptake of the isotope into the myocardium can be visualized using a nuclear scanner. When combined with stress either through exercise or use of a pharmacological agent, the Cardiolite scan helps determine if the ischemic segments are present within the heart muscle. The guidelines from the American College of Cardiology state that Cardiolite stress testing is for detecting coronary artery disease by localizing myocardial ischemia (reversible defects) and infarction (non-reversible defects), in evaluating myocardial function and developing information for use in patient management decisions. The patient had a Cardiolite stress test less than 1 year ago. The study was for normal for the patient with no evidence of new ischemic defects. On physical exam, the patient endorsed being tired but did not have any signs or symptoms or unstable angina. In this clinical situation, a repeat test is not warranted. Thus, since Cardiolite testing is not indicated; use of the isotope is not indicated as well. Therefore, based on the submitted medical documentation, the request for Cardiolite isotope is not medically necessary.

### **Echocardiogram, Qty 1: Upheld**

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation US National Institutes of Health/ National Library of Medicine - MedLine Plus - Cardiology guidelines.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Antman EM, Smith SC, Alpert JS, et al. ACC/AHA/ASE 2003 Guideline Update for the Clinical Application of Echocardiography. ACC/AHA Practice Guidelines. Dallas, TX: American Heart Association; 2003. Available at: <http://www.americanheart.org/>, Gottdiener JS, Bednarz J, Devereix R, et al. American Society of Echocardiography recommendations for use of echocardiography in clinical trials. A report from the American Society of Echocardiography's Guidelines and Standards Committee and the Task Force on Echocardiography in Clinical Trials. American Society of Echocardiography Report. J Am Soc Echocardiography. 2004;17 (10): 1086-1119.

**Decision rationale:** There is not sufficient clinical information provided to justify the medical necessity of testing for this patient. The California MTUS guidelines, ACOEM Guidelines and the Occupational Disability Guidelines (ODG) do not address this topic. Echocardiography is an ultrasound technique for diagnosing cardiovascular disorders. Evidence-based guidelines from the American College of Cardiology, American Heart Association, and American Society of Echocardiography outlined the accepted capabilities for Doppler echocardiography in the adult patient. Among indications related to anatomy-pathology, color Doppler was rated as most helpful for evaluating septal defects. Among functional indications, color Doppler was considered most useful for evaluating the site of right-to-left and left-to-right shunts (Antman et al, 2003). Color Doppler was also considered useful for evaluating severity of valve stenosis and valve regurgitation and evaluation of prosthetic valves. This patient had an echocardiogram 6 months, which demonstrated no progression of disease. On physical exam, the patient had no new complaints of unstable angina or valvular disease. In this clinical situation, a repeat test is not warranted. Therefore, based on the submitted medical documentation, the request for echocardiogram is not-medically necessary.