

National Imaging Associates, Inc.	
Clinical guidelines/considerations <u>STRESS ECHOCARDIOLOGY</u> 93350, 93351, + 93352	Date: February 01, 2010 Page 1 of 3 “FOR INDEPENDENT HEALTH MEMBERS ONLY”
Guideline Number: NIA_CG_026	Last Review Date:
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“FOR INDEPENDENT HEALTH MEMBERS ONLY”

INTRODUCTION:

The primary use of Stress Echocardiography is in the diagnosis or exclusion of obstructive Coronary Artery Disease (CAD). Stress echocardiography can also be used to determine myocardial viability before revascularization, assess prognosis after myocardial infarction or in chronic angina, evaluate cardiac risk preoperatively, assess valvular heart disease and detect and manage pulmonary hypertension.

INDICATIONS FOR STRESS ECHOCARDIOLOGY:

CARDIAC EVALUATION FOR PATIENT WITH SUSPECTED CAD:

- Evaluate patient with suspected coronary artery disease who is considered to be a **high** risk for CAD (based on Framingham risk factors) and has not had any cardiac testing down within the past 2 years. (Such as stress echo nuc card study or exercise treadmill or stress test). *(Use the Framingham Risk Calculator to determine patient’s risk for CAD).*
- Evaluate patient with suspected coronary artery disease, who is considered to be an **intermediate** risk for CAD (based on Framingham risk factors) has not had any cardiac testing done (Such as stress echo nuc card study or exercise treadmill or stress test) within the past 2 years AND has an abnormal EKG. *(Use the Framingham Risk Calculator to determine patient’s risk for CAD).*
- Evaluate patient with suspected coronary artery disease, who is considered to be an **intermediate** risk for CAD (based on Framingham risk factors) has not had any cardiac testing done (Such as nuc card study, exercise treadmill or stress test) within the past 2 years AND has physical limitations prohibiting exercise treadmill testing. *(Use the Framingham Risk Calculator to determine patient’s risk for CAD).*
- Evaluate patient with suspected coronary artery disease, who is considered to be an **intermediate** risk for CAD (based on Framingham risk factors) has not had any cardiac testing done (Such as nuc card study, exercise treadmill or stress test) within the past 2 years AND has an abnormal exercise treadmill test. *(Use the Framingham Risk Calculator to determine patient’s risk for CAD).*

CARDIAC EVALUATION FOR PATIENT WITH KNOWN CAD: (Has history of coronary intervention such as previous cardiac surgery, coronary bypass surgery, angioplasty, stent placement, and atherectomy, CABG, PTCA, MI or CHF. Previous stress echo nuc card study or exercise treadmill or stress test states findings are consistent with ischemic heart disease). (Does not include heart transplant).

- Evaluate patient with known coronary artery disease who experienced an abnormal cardiac testing (such as coronary cath/angio, nuclear stress or MPI, or CCTA) within the past 30 days ordered by a Cardiologist.

With New or Changing Cardiac Symptoms:

- Evaluate patient with known coronary artery disease with new or changing cardiac symptoms and has an abnormal EKG of LBBB, WPW, ST depression >1mm, or ventricular pacing.
- Evaluate patient with known coronary artery disease with new or changing cardiac symptoms and has physical limitations prohibiting exercise treadmill testing due to contraindication such as morbid obesity, dyspnea on exertion, orthopedic conditions causing immobility.
- Evaluate patient with known coronary artery disease with new or changing cardiac symptoms and has an abnormal ETT (exercise tolerance or treadmill test) that has findings consistent with ischemic heart disease.

No New or Changing Cardiac Symptoms:

- Evaluate patient with known coronary artery disease, who does NOT have new or changing cardiac symptoms, if no cardiac imaging tests (stress echo, MPI, or CCTA) have been done within the past two years and has an abnormal EKG or physical limitations that prohibiting exercise or has an abnormal ETT.
- Follow-up patient with known coronary artery disease, who does NOT have new or changing cardiac symptoms with a recent abnormal ETT that has findings consistent with ischemic heart disease.

OTHER:

- Pre-surgical work-up for non-cardiac major surgery with general anesthesia.

INDICATIONS THAT REQUIRE FURTHER CLINICAL REVIEW:

- Questionable cases – refer for MD review.

ADDITIONAL INFORMATION RELATED TO STRESS ECHOCARDIOLOGY:


Framingham Risk Factors (Use ONLY if calculator unavailable):

- Patient is considered to be a high risk for CAD if they have three (3) of the following risk factors; patient is considered to be at intermediate risk for CAD if they have two (2) of the following risk factors:
 - Age 55 and/or older
 - Diabetic
 - Hypertension
 - Active history of smoking
 - History of LDL cholesterol > 130
 - History of HDL cholesterol < 35
 - Obesity with BMI > 35
 - Family history of premature or early onset of CAD:
 - Father below age 55
 - Mother below age 65
- Evaluation of regional ventricular wall motion, in ischemic heart disease of uncertain functional significance.
- Evaluation of regional ventricular wall motion after therapeutic interventions, particularly PTCA.
- Evaluation of generalized ventricular function, which is borderline on resting echocardiography.
- Diagnose the cause of chest pain. (Exercise stress testing without echo or nuclear imaging is the test of choice.)
- Severity of disease (territory at risk, risk stratification).
- Progression of disease over time.
- Treatment response: CABG, PTCA, athrectomy, stent placement, drug therapy.

Exercise Treadmill Testing - Exercise Treadmill Testing (ECG) is the appropriate first line test in most patients with suspected CAD. In appropriately selected patients the test provides adequate sensitivity and specificity with regard to diagnosis and prognostication. There are patients in whom the test is not the best choice, for example those with resting ECG abnormalities, inability to exercise and perhaps diabetes. Also of note from an operational standpoint the test does not require pre-authorization.

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