Stress Echocardiogram

Clinical Guidelines for Medical Necessity Review

Version: V1.0
Effective Date: September 28, 2022

Important Notices

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Other Notices:

Guideline Information:

Disease Area: Cardiology
Care Path Group: Not applicable
Care Path Name: Stress Echocardiogram
Type: [**X**] Adult (18+ yo) | [_] Pediatric (0-17yo)

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Definitions

Ischemic Equivalent[1]: Chest pain syndrome, anginal equivalent, or ischemic electrocardiogram (ECG) abnormalities are any constellation of clinical findings that the physician believes is consistent with CAD manifestations. Examples of such findings include, but are not limited to, pain, pressure, tightness, or discomfort in the chest, shoulders, arms, neck, back, upper abdomen, or jaw, new ECG abnormalities, or other symptoms/findings suggestive of CAD. Clinical presentations in the absence of chest pain (e.g., dyspnea with exertion, fatigue, or reduced/worsening effort tolerance) consistent with CAD may also be considered an ischemic equivalent.

Care Path Services & Medical Necessity Criteria

Service: Stress Echocardiogram

General Guidelines

- **Units, Frequency, & Duration:** None.
- **Criteria for Subsequent Requests:** None.
- **Recommended Clinical Approach:** Stress echocardiography is an option for patients with chest pain (or ischemic equivalent) and intermediate or high pretest probability of coronary artery disease (CAD).[2,3] Physicians can use either exercise or pharmacologic agents (i.e., dobutamine) as the stress mechanism. This test results in no radiation exposure and is typically lower cost than myocardial perfusion imaging (MPI-SPECT). Other advantages of stress echo compared to MPI-SPECT include shorter patient time commitment, and additional information on cardiac structures (valves, ascending aorta, pericardial space). The test is less technically demanding than MPI-SPECT. Stress echocardiography has lower diagnostic accuracy in patients with limited acoustic windows.[3-5]
- **Exclusions:** None.

Medical Necessity Criteria

Indications

➔ **Stress echo** is considered appropriate if **ALL** of the following are **TRUE**[6]:
- ◆ The patient has chest pain (or an ischemic equivalent), and **ANY** of the following[7]:

- No known CAD with an intermediate or high pretest probability of CAD
- History of CAD with symptoms on optimal guideline-directed medical therapy (GDMT) or documented intolerance to GDMT.

◆ The patient has **ANY** of the following:
- ECG abnormalities that interfere with the ECG diagnosis of ischemia, including **ANY** of the following:
  - An inability to achieve the target heart rate with a standard exercise treadmill test (greater than or equal to 85% of age-predicted maximal HR).
  - Ventricular preexcitation (Wolff-Parkinson-White)
  - Ventricular paced rhythm
  - Left bundle branch block (LBBB)
  - Greater than 1 mm ST depression at rest
  - Left ventricular hypertrophy with ST-T abnormalities
  - The patient takes digoxin.
- **ANY** of the following conditions[5]:
  - Severe chronic obstructive pulmonary disease (COPD)
  - Congestive heart failure (CHF)
  - Prior thoracotomy (e.g., CABG)
  - An inability to exercise or exercises submaximally that requires pharmacological stress
  - Segmental wall motion abnormalities at rest

Non-Indications

➔ **Stress echo** is not considered appropriate if **ANY** of the following is **TRUE**[6,8-13]**:**
- ◆ There was an acute myocardial infarction within the last 48 hours.
- ◆ The patient has acute pericarditis/myocarditis.
- ◆ The patient has symptomatic, severe aortic stenosis.
- ◆ The patient has uncontrolled or unstable arrhythmias.
- ◆ The patient has an acute aortic dissection.
- ◆ The patient has unstable angina or heart failure.
- ◆ There is an acute pulmonary embolism or pulmonary infarction.
- ◆ The patient cannot exercise sufficiently or tolerate pharmacologic agents to simulate exercise.
- ◆ Normal coronary angiogram or CCTA within the last two years and with no stenosis or plaque
- ◆ Normal stress test (given adequate stress) within the last year

➔ **Stress echo** may not be considered appropriate if **ANY** of the following is **TRUE**[6,9-13]**:**
- ◆ The patient has moderate stenotic valvular heart disease.

- There is a high-degree atrioventricular (AV) block.
- The patient has severe hypertension (greater than 180/100 mm Hg).
- There are significant electrolyte abnormalities.
- The patient is tachycardic or bradyarrhythmic.

Site of Service Criteria

Outpatient.

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
93350	Real time transthoracic echocardiography with 2-dimensional (2D) image documentation during rest and cardiovascular stress test using treadmill and pharmacologically induced stress, with interpretation and report
93351	Real time transthoracic echocardiography with 2-dimensional (2D) image documentation during rest and cardiovascular stress test using treadmill, bicycle exercise and pharmacologically induced stress, with interpretation and report, including performance of continuous electrocardiographic monitoring, with physician supervision
C8928	Tte w or w/o fol w/con,stres
C8930	Tte w or w/o contr, cont ecg

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Clinical Guideline Revision History/Information

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