University of Vermont Health

UVM Health CARDIAC STRESS TESTING GUIDANCE

Please be aware you MAY get a request to change ordered testing from exercise to pharmacological or vice versa. Exercise testing is informative and typically better tolerated, but if there are contraindications or the exercise target is not possible, our cardiac testing triage team will ask you to substitute a pharmacological test. You may be called to approve such a change for your patient.

Exercise Tolerance Test (AKA non imaging stress test, exercise treadmill test)

EPIC Order: EXERCISE TOLERANCE TEST (STRESS1127)

Best for: patients who can exercise

*Do **NOT** order if patient has:*

- Left Bundle Branch Block (LBBB)
- Pacemaker
- Baseline ST changes on EKG
- WPW syndrome
- Digoxin treatment
- LVH on EKG

NOTE: Hold beta blocker 1-2 days prior to the test, except if you are testing whether current treatment for coronary disease or angina is adequate.

SPECT Nuclear Stress Tests

EPIC Order: NM CARD SPECT NUCLEAR STRESS (STRESS1106)

Best for: older people with higher risk of coronary disease

*Do **NOT** order for:*

- Young patients who have a low pretest likelihood of coronary disease
- Pregnant patients (radiation)
- Preoperative evaluation for asymptomatic patients before low-risk surgery

University of Vermont Health

Within the SPECT Nuclear Stress Test order, pick one of the following:

- Exercise SPECT – patient able to exercise; patient does not have LBBB or pacemaker
- Pharmacological SPECT (with Regadenoson) - patient cannot walk on a treadmill at normal walking pace for a least 3 minutes, or patient has LBBB or a pacemaker

NOTE: For both exercise and pharmacologic SPECT, hold theophylline-containing medications (eg Theo-Dur), pentoxifylline (Trental), and ASA-dipyridamole (Aggrenox) for 3 days prior to test. Hold caffeine including "decaf" beverages for 12 hours prior to test.

PET Nuclear Stress Test (always pharmacological)

EPIC Order: NM CARD PET NUCLEAR STRESS (STRESS1110)

Best for: older, higher-risk patients who cannot exercise or have LBBB or pacemaker

- Patients with BMI of > 30, who cannot exercise (Insurance coverage often limited to patients with high BMI (>30 or >35 kg/m2 who can't exercise)
- Evaluation of microvascular coronary disease or a high suspicion of diffuse coronary disease

NOTE: Hold theophylline-containing medications (eg Theo-Dur), pentoxifylline (Trental), and ASA-dipyridamole (Aggrenox) for 3 days prior to test. Hold caffeine and "decaf" beverages for 12 hours prior to test.

You can choose to add on a test for coronary calcium score in patients without known coronary disease.

Exercise Echocardiogram Stress Test

EPIC Order: EXERCISE ECHOCARDIOGRAM STRESS TEST (ECH1007)

Best for evaluation of:

- Coronary ischemia in intermediate risk patients who can exercise
- Dyspnea on exertion because we can also evaluate pulmonary pressures and diastolic function in many cases

*Do **NOT** order for: Patients with LBBB as it will impede the interpretation of the echo images*

NOTE: In case of difficult echo image quality, patients may need echo contrast or study may need to be rescheduled as another modality.

University of Vermont Health

Pharmacologic Echocardiogram Stress Test (aka Dobutamine Echocardiogram)

EPIC Order: PHARMACOLOGIC ECHOCARDIOGRAM STRESS TEST (ECH1107)

Best for evaluation of:

- Aortic stenosis when there is a question of severity
- Myocardial viability when a nuclear viability study is not desired or not feasible
- CAD for patients who cannot exercise and have a contraindication to regadenoson, eg active COPD with wheezing

NOTE: Stop beta blockers 1-2 days prior to the test as dobutamine action is inhibited by beta blockers.