

Heart Catheterization

Clinical Guideline Tip Sheet

*This tip sheet is intended to further assist you with the clarification of the National Imaging Associates, Inc. (NIA) clinical guidelines. It is for informational purposes only and is **NOT** intended as a substitute for the clinical guidelines that must be utilized when reviewing cases for medical necessity and clinical appropriateness.*

Overview

Documentation/reports/testing needs to be provided for review of request. Office notes provided should explain the plan for arteriography, based on an increasing pattern of typical symptoms of a concern for Unstable angina.

Recommendations

Stable Ischemic Heart Disease:

- ❖ Symptoms of ischemia and cannot undergo stress testing or CCTA, and there is a high likelihood the outcome will affect therapy
- ❖ ETT with high risk DTS (-11) or ST elevation, hypotension, or VT during exercise or several minutes of ST depression persisting into recovery
- ❖ Low risk stress imaging with new or worsening symptoms concerning for coronary origin despite optimal medical therapy (OMT) or documentation that patient cannot tolerate OMT
- ❖ Intermediate risk findings on stress imaging - (see guideline background section) with symptoms suggestive of CAD, unsatisfactory quality of life due to angina symptoms or EF less than 50%
- ❖ High risk findings on stress imaging including:
 - Resting left ventricular (LV) dysfunction (LVEF <35%)
 - Severe stress-induced left ventricular (LV) dysfunction
 - Stress-induced perfusion abnormalities $\geq 10\%$ myocardium or stress indicating multiple vascular territories with abnormalities
 - Stress-induced LV dilation
- ❖ Discordant/Inconclusive non-invasive results in symptomatic patients (i.e.- strongly positive stress ECG portion with low risk imaging)

CCTA Abnormalities:

- ❖ Symptomatic patients with one vessel with > 50% stenosis
- ❖ Symptomatic patients with stenosis of 40-90% and FFR-CT less than 0.8.
- ❖ Left main stenosis of 50% or greater (regardless of symptoms)

Heart Failure and Left Ventricular Dysfunction (in patients who are candidates for coronary revascularization)

- ❖ Newly recognized heart failure in patients with known or suspected CAD
- ❖ New wall motion abnormality and symptoms suggestive of ischemia
- ❖ To investigate structural heart disease when there is a concern for ischemic etiology (secondary MR/VSD)
- ❖ To investigate etiology of diastolic heart failure where there is reasonable likelihood of CAD (based on symptoms or imaging studies)

Ventricular Arrhythmias (without identified non-cardiac cause)

- ❖ Recovery post cardiac arrest
- ❖ Sustained ventricular tachycardia or ventricular fibrillation
- ❖ Exercise induced Ventricular tachycardia

Prior to non-coronary cardiac surgery (i.e., prior to valve replacement, repair of aneurysm) in a patient with:

- ❖ Symptoms of angina
- ❖ History of CAD or with cardiac risk factors (includes men > 40 or post-menopausal women)
- ❖ LV function \leq 50%
- ❖ Prior to TAVR
- ❖ Non-invasive data that shows objective evidence of ischemia
- ❖ When more detailed assessment of coronary artery anatomy (including anomalous origins) is necessary

Post Cardiac Transplantation:

- ❖ Assessment for annual graft vasculopathy for the first 5 years, followed by annual assessment if there is documented allograft vasculopathy
- ❖ Any clinical change (new LV dysfunction, ischemic symptoms, non-invasive findings of ischemia)

Hemodynamic Assessment - NIA does not manage right heart catheterization as a stand-alone procedure)

- ❖ Discordance between non-invasive data and clinical picture when management will be changed by the results of the angiogram
- ❖ Hemodynamic assessment of bio prosthetic or mechanical valve when TTE and TEE images are inadequate and CMR or CCT are not readily available

References

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2018 AHA/ACC Guideline for the Management of Adults With Congenital Heart Disease

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