PRESBYTERIAN
Health Plan, Inc.

P.O. Box 27489, Albuquerque, NM 87125-7489
www.phs.org

Heart Catheterization Clinical Guideline Tip Sheet

This tip sheet is intended to further assist you with the clarification of the Evolent (formerly National Imaging Associates, Inc.) 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 need 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 coronary computed tomography angiography (CCTA), and there is a high likelihood the outcome will affect therapy
- Exercise tolerance test with high-risk Duke Treadmill Score (DTS) (-11) or ST elevation, hypotension or ventricular tachycardia during exercise or several minutes of ST depression persisting into recovery
- Low-risk stress imaging with new or worsening symptoms concerning 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 coronary artery disease (CAD), unsatisfactory quality of life due to angina symptoms or ejection fraction EF less than 50%
- High-risk findings on stress imaging including:
    - Resting left ventricular (LV) dysfunction (LVEF <35%)
    - Severe stress-induced LV dysfunction
    - Stress-induced perfusion abnormalities greater than or equal to 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 electrocardiogram (ECG) portion with low-risk imaging)

CCTA Abnormalities:

- Symptomatic patients with one vessel with greater than 50% stenosis

- Symptomatic patients with stenosis of 40-90% and Fractional Flow Reserve – Computed Tomography (FFR-CT) less than 0.8
- Left main stenosis of 50% or greater (regardless of symptoms)

Heart Failure and LV 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 mitral regurgitation/ventricular septal defect)
- 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 over 40 years of age or post-menopausal women)
- LV function less than 50%
- Prior to transcatheter aortic valve replacement
- 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 five 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 (Evolent 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 bioprosthetic or mechanical valve when transthoracic echocardiogram (TTE) and transesophageal echocardiogram (TEE) images are inadequate and cardiovascular magnetic resonance (CMR) or cardiac computed tomography (CCT) are not readily available

References

A Report of the American College of Cardiology Foundation Appropriate Use Criteria Task Force, Society for Cardiovascular Angiography and Interventions, American Association for Thoracic Surgery, American Heart Association, American Society of Echocardiography, American Society of Nuclear Cardiology, Heart Failure Society of America, Heart Rhythm Society, Society of Critical Care Medicine, Society of Cardiovascular Computed Tomography, Society for Cardiovascular Magnetic Resonance, and Society of Thoracic Surgeons. JACC. 2012; 59(22):1995-2027.

Al-Khatib SM, Stevenson WG, Ackerman MUJ, et al. 2017 AHA/ACC/HRS Guideline for Management of Patients with Ventricular Arrhythmias and the Prevention of Sudden Cardiac Death. Accepted Manuscript in Press. JACC. Available at: https://www.jacc.org/doi/pdf/10.1016/j.jacc.2017.10.054?_ga=2.50014127.860733034.1652283446-1800485333.1648040047 Retrieved May 1, 2018

Wolk MJ, Bailey SR, Doherty JU, et al. ACCF/AHA/ASE/ASNC/HFSA/HRS/SCAI/SCCT/SCMR/STS 2013 Multimodality Appropriate use criteria for the detection and risk assessment of stable ischemic heart disease: A report of the American College of Cardiology Foundation Appropriate Use Criteria Task Force, American Heart Association, American Society of Echocardiography, American Society of Nuclear Cardiology, Heart Failure Society of America, Heart Rhythm Society, Society for Cardiovascular Angiography and Interventions, Society of Cardiovascular Computed Tomography, Society for Cardiovascular Magnetic Resonance, and Society of Thoracic Surgeons. JACC. 2014;63(4):380-406. Available at: https://www.jacc.org/doi/pdf/10.1016/j.jacc.2013.11.009?_ga=2.212610333.860733034.1652283446-1800485333.1648040047

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

Karen K. Stout, Curt J. Daniels, Jamil A. Aboulhosn, Biykem Bozkurt, Craig S. Broberg, Jack M. Colman, Stephen R. Crumb, Joseph A. Dearani, Stephanie Fuller, Michelle Gurvitz, Paul Khairy, Michael J. Landzberg, Arwa Saidi, Anne Marie Valente, George F. Van Hare Journal of the American College of Cardiology Aug 2018, 25255; DOI: 10.1016/j.jacc.2018.08.1029

Doherty JU, Kort S, Mehran R. et al. ACC/AATS/AHA/ASE/ASNC/HRS/SCAI/SCCT/SCMR/STS 2017 Appropriate Use Criteria for Multimodality Imaging in Valvular Heart Disease. A Report of the American College of Cardiology Appropriate Use Criteria Task Force, American Association for Thoracic Surgery, American Heart Association, American Society of Echocardiography, American Society of Nuclear Cardiology, Heart Rhythm Society, Society for Cardiovascular Angiography and Interventions, Society of Cardiovascular Computed Tomography, Society for Cardiovascular Magnetic Resonance, and Society of Thoracic Surgeons. JACC. 2017; 70(13):1647-1672.