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ASNC Consensus Statement: Myocardial Perfusion Imaging in Women for the Evaluation of Stable Ischemic Heart Disease—State-of-the Evidence and Clinical Recommendations

Viviany R. Taqueti, MD, MPH, Sharmila Dorbala, MD, MPH, David Wolinsky, MD, Brian Abbott, MD, Gary V. Heller, MD, PhD, Timothy M. Bateman, MD, Jennifer H. Mieres, MD, Lawrence M. Phillips, MD, Nanette K. Wenger, MD, Leslee J. Shaw, PhD

Brigham and Women's Hospital, Harvard Medical School, Boston, MA; Cleveland Clinic, Weston, FL; Warren Alpert Medical School, Brown University, RI; Morristown Medical Center, Morristown NJ; Saint Luke's Health System, University of Missouri-Kansas City School of Medicine, Kansas City, MO; Hofstra Northwell School of Medicine, New York, NY; New York University Langone Medical Center, New York University School of Medicine, New York, NY; Emory University Clinical Cardiovascular Research Institute, Emory University School of Medicine, Atlanta, GA

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BACKGROUND

1- Clinical evaluation of symptomatic women is challenging due to their varying clinical presentation, clinical risk factor burden, high degree of comorbidity, and increased risk of major ischemic heart disease (IHD) events.

2- This represents an updated consensus statement from ASNC on the evidence base of stress myocardial perfusion imaging (MPI), emphasizing new developments in single photon emission tomography (SPECT) and positron emission tomography (PET) in the clinical evaluation of women presenting with symptoms of stable ischemic heart disease (SIHD).

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KEY POINTS

The latest evidence on the role of nuclear cardiology techniques in the diagnostic and prognostic evaluation of women are discussed, including:

- Appropriate use of MPI in women
- MPI with SPECT and PET
- MPI as gatekeeper to quality testing patterns in women, including strategies for radiation dose reduction
- Randomized trial evidence of MPI for the evaluation of suspected SIHD
- Future directions in clinical research for assessing SIHD in women with and without obstructive CAD

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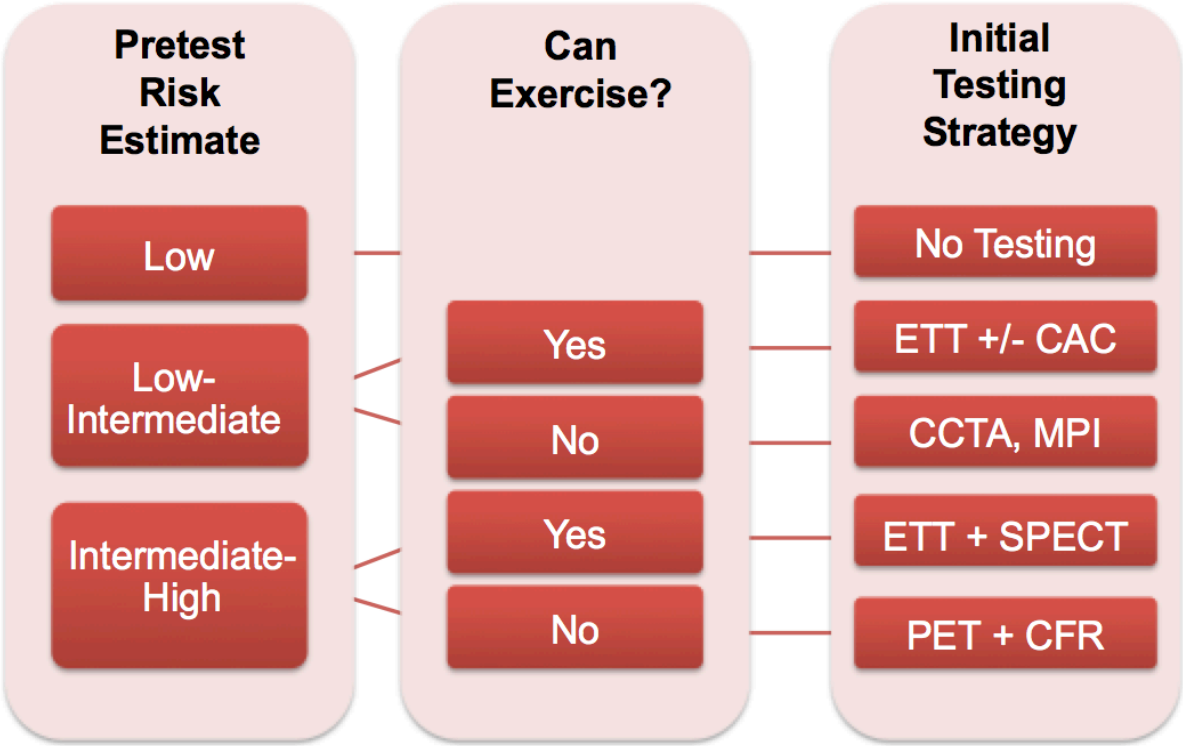
Proposed Clinical Algorithm for the Preferred Initial Diagnostic Evaluation of Symptomatic Women with Suspected IHD with or without Obstructive CAD



*Assumes test is locally available and ALARA principles for radiation dose reduction strategies (i.e., prospective ECG-gated CT, avoidance of dual-isotope and ^{201}TI SPECT protocols, and preference for CZT and stress-only SPECT, or PET) are utilized when possible.
**In cases where an anatomical strategy (i.e., CCTA or invasive coronary angiography) demonstrates absence of obstructive CAD, consider PET-CFR evaluation for coronary microvascular dysfunction.
***If nonobstructive CAD and/or coronary microvascular dysfunction is present, refer for guideline-directed therapies (where paucity of data and guidelines suggests more research is needed to define optimal therapies).

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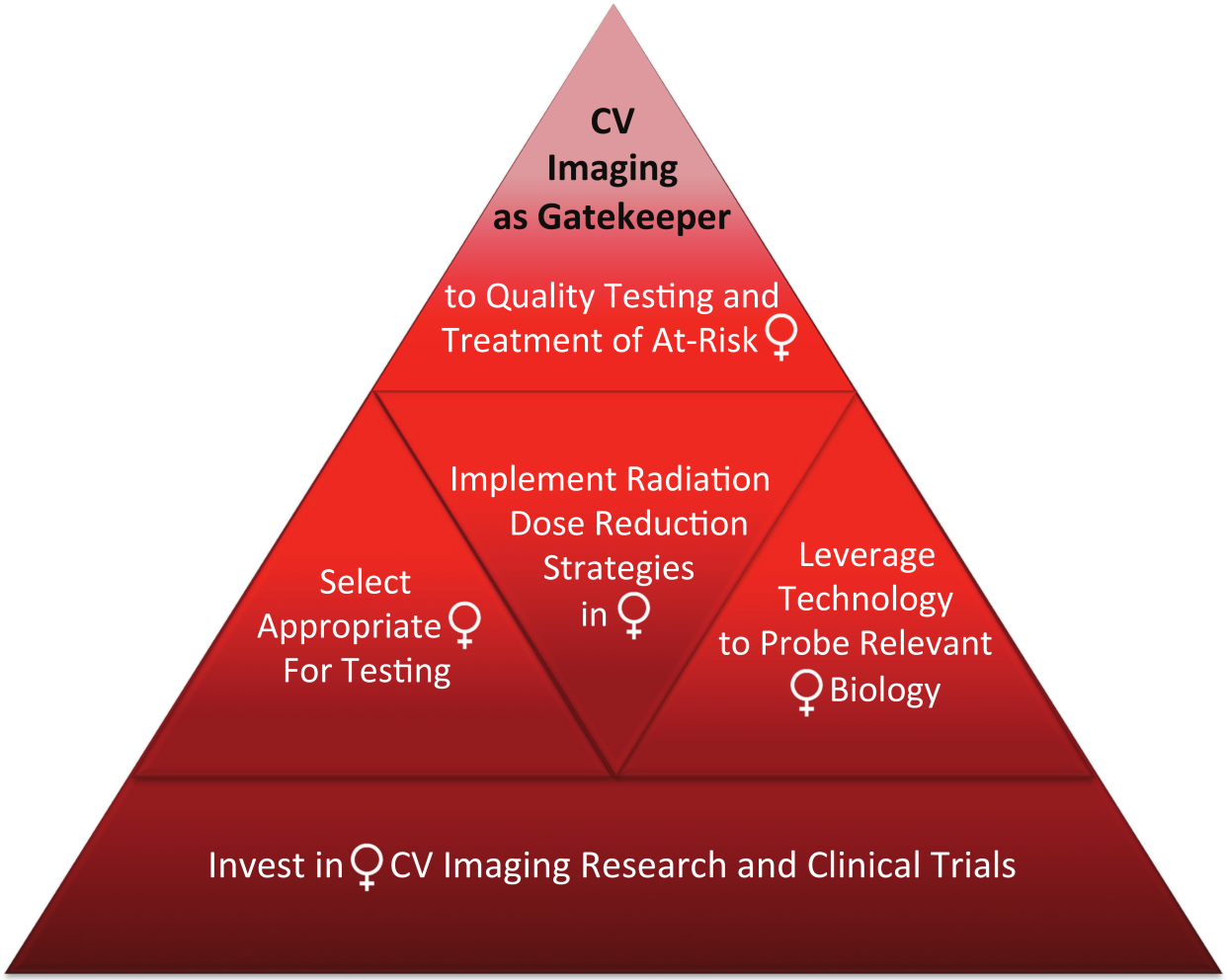
Top Priorities for CV Imaging in Women



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CONCLUSIONS

1- IHD poses a major threat to women across their lifespans, and we must modernize tools for the diagnosis and management of IHD in women. This updated consensus statement provides a state-of-the-art review on the available evidence of the role of MPI for the evaluation of stable IHD in symptomatic women.

2- The evidence base for SPECT and PET MPI in women is robust and supports accurate detection of obstructive CAD, effective risk stratification, and appropriate utilization of downstream procedures. Integration of multiple parameters interrogating aspects of both function and anatomy into an MPI examination may improve detection of SIHD in women and provide management guidance for patients with nonobstructive epicardial CAD and coronary microvascular dysfunction.

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