Top Ten Things to Know About Cardiac Radionuclide Imaging

Appropriateness Criteria

1. Appropriate Use Criteria reflect an effort to critically and systematically create, review and categorize clinical situations where diagnostic tests and procedures are utilized by physicians caring for patients with CVD.

2. A Technical Panel was asked to assess whether the use of the test for 67 clinical situations was deemed appropriate, uncertain, or inappropriate.

3. An appropriate imaging study is one in which the expected incremental information, combined with clinical judgment, exceeds the expected negative consequences by a sufficiently wide margin that the procedure is generally considered acceptable care and a reasonable approach for the indication.

4. Negative consequences are considered the risks of the procedure radiation or contrast exposure and the downstream impact of poor test performance such as delay in diagnosis or inappropriate diagnosis.

5. To prevent any inconsistencies in interpretation, all indications were considered with a number of assumptions.

6. Some of the assumptions included: all technologies were available; protocols were carried out as suggested in published literature; radionuclide imaging is performed in accordance with best practice standards; if patients were able to exercise the mode of stress testing was exercise; and, if patients unable to exercise or have known ACS pharmacologic stress testing would be performed.

7. The definition of “chest pain syndrome” (which had caused confusion in the prior document) was changed to “ischemic equivalent” which encompasses chest pain syndromes as well as other symptoms and signs that the clinician believes may be due to obstructive CAD.

8. Among the 67 indications, 33 were classified as appropriate, while uncertain and inappropriate designations were assigned for 9 and 25 indications respectively.

9. Clinicians could use the ratings for decision support or an educational tool when considering the need for RNI and to facilitate discussion with patients and/or referring physicians about the need for RNI.

10. This document represents the current understanding of the clinical benefit of RNI with respect to health outcomes and survival and is intended to provide a practical guide to clinicians and patients when considering cardiac RNI.

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