



**ACC Comments on CMS/NIA/Dobson Imaging Measures  
Submitted via [imagingmeasures.com](http://imagingmeasures.com) Public Comment Web Site**

**Measure #2 – Use of stress imaging (SPECT and stress echo) Post CABG**

**1. Importance/Relevance: As constructed, does the measure have epidemiological, financial and/or policy relevance?**

Neutral

The measure addresses the important issue of appropriate patient selection for cardiac stress testing within five years of a CABG procedure. However, studies that have implemented appropriate use criteria have found the use of imaging after CABG surgery is infrequent. As such, the importance of this measure compared to other clinical indications, such as that identified by measure #1, may not very high.

**2. Scientific Acceptability: As constructed, does the measure provide adequate reliability, validity, risk adjustment, and stability?**

Strongly Disagree

The feasibility section ignores substantial challenges to implementation without clinical data. As the document points out, stress testing is considered inappropriate after revascularization in asymptomatic patients. The clinical course in patients following revascularization is highly variable. Some have sustained benefits, others develop recurrent angina requiring revascularization, and others have symptoms that are considered appropriate for medical therapy and/or are considered non-anginal in retrospect after further diagnostic testing. It is unlikely that comparisons between outpatient centers would be valid as the number of patients who fall into each of the categories is likely to be variable. This measure would require thorough validation with clinical data, as the threats to the validity of claims data to achieve the stated goals are substantial.

For the post-CABG patient the Appropriateness Criteria for SPECT and Echo are different. SPECT = Uncertain; Echo = Inappropriate. As such, there is uncertainty in the clinical community on the use of testing after CABG, likely due to the highly variable clinical course following CABG.

The denominator as currently defined makes attribution to a specific outpatient center difficult. Currently, the denominator is all patients who have had a CABG in the prior five years. This is equivalent to the sum of patients who have had CABG in the prior five years AND have had a stress imaging test (easily assigned to the outpatient hospital setting performing the stress imaging) plus patients who have had CABG in the prior five years AND have NOT had a stress imaging procedure (impossible to determine which patients should be attributed to a specific outpatient hospital setting).

The measure should be tested fully related to all aspects of scientific acceptability including but not limited to accuracy of the numerator and denominator, exclusions, attribution, and whether variation on the measure is truly a reflection of quality. Furthermore, the measure should not be used for identifying outliers and performance or public reporting until such testing has been completed.

**3. Usability: As constructed, does the measure provide actionable decision support that is controllable and adaptable?**

Disagree

The exclusion for patients who have undergone revascularization within 6 months of testing could create a perverse incentive to pursue inappropriate revascularization following an inappropriate stress test--it is not clear that given the variability in practice with respect to revascularization that this is a good measure of the appropriateness of an antecedent stress test. In addition, the justification for excluding tests performed within 6 months of CABG is not clear, and is presumably an attempt to circumvent the challenges of utilizing claims data. However, this exclusion, too, could create a perverse incentive to perform routine testing within the first 6 months of surgery if it is known that studies at a later time will be considered inappropriate.

**4. Feasibility: As constructed, is the measure well-defined, with a reasonable burden of data collection with minimal distortion?**

Disagree

The measure is of questionable validity using claims data alone. It seems highly unlikely that claims data will be able to accurately identify the group of asymptomatic patients for whom imaging was inappropriate on clinical grounds. The exclusions (patients at high risk for silent ischemia or those that undergo revascularization within 6 months of testing) appear to be an attempt to address this issue. However, these exclusions are a blunt instrument and are not likely to achieve the desired result. With respect to patients with risk factors for silent ischemia, the specification is excessively vague ("e.g. diabetes") and requires greater clarification. Even with this clarification, it is not clear that administrative sources are adequate for the intended clinical purpose.

The determination of outlier facilities may be difficult depending on the variability in the frequency of stress imaging in this population across facilities. All facilities may be within a very narrow range making determining a cut-off value for an outlier difficult to determine.