

## 2006 Appropriateness Criteria for CMR

<b>Table 12. Detection of CAD: Symptomatic</b>		<b>Appropriateness Criteria (Median Score)</b>
<b>Indication</b>		
<b>Evaluation of Chest Pain Syndrome (Use of Vasodilator Perfusion CMR or Dobutamine Stress Function CMR)</b>		
1.	<ul style="list-style-type: none"> <li>• Low pre-test probability of CAD</li> <li>• ECG interpretable AND able to exercise</li> </ul>	I (2)
2.	<ul style="list-style-type: none"> <li>• Intermediate pre-test probability of CAD</li> <li>• ECG interpretable AND able to exercise</li> </ul>	U (4)
3.	<ul style="list-style-type: none"> <li>• Intermediate pre-test probability of CAD</li> <li>• ECG uninterpretable OR unable to exercise</li> </ul>	A (7)
4.	<ul style="list-style-type: none"> <li>• High pre-test probability of CAD</li> </ul>	U (5)
<b>Evaluation of Chest Pain Syndrome (Use of MR Coronary Angiography)</b>		
5.	<ul style="list-style-type: none"> <li>• Intermediate pre-test probability of CAD</li> <li>• ECG interpretable AND able to exercise</li> </ul>	I (2)
6.	<ul style="list-style-type: none"> <li>• Intermediate pre-test probability of CAD</li> <li>• ECG uninterpretable OR unable to exercise</li> </ul>	I (2)
7.	<ul style="list-style-type: none"> <li>• High pre-test probability of CAD</li> </ul>	I (1)
<b>Evaluation of Intra-Cardiac Structures (Use of MR Coronary Angiography)</b>		
8.	<ul style="list-style-type: none"> <li>• Evaluation of suspected coronary anomalies</li> </ul>	A (8)
<b>Acute Chest Pain (Use of Vasodilator Perfusion CMR or Dobutamine Stress Function CMR)</b>		
9.	<ul style="list-style-type: none"> <li>• Intermediate pre-test probability of CAD</li> <li>• No ECG changes and serial cardiac enzymes negative</li> </ul>	U (6)
10.	<ul style="list-style-type: none"> <li>• High pre-test probability of CAD</li> <li>• ECG—ST-segment elevation and/or positive cardiac enzymes</li> </ul>	I (1)
<b>Table 13. Risk Assessment With Prior Test Results (Use of Vasodilator Perfusion CMR or Dobutamine Stress Function CMR)</b>		<b>Appropriateness Criteria (Median Score)</b>
<b>Indication</b>		
11.	<ul style="list-style-type: none"> <li>• Normal prior stress test (exercise, nuclear, echo, MRI)</li> <li>• High CHD risk (Framingham)</li> <li>• Within 1 year of prior stress test</li> </ul>	I (2)
12.	<ul style="list-style-type: none"> <li>• Equivocal stress test (exercise, stress SPECT, or stress echo)</li> <li>• Intermediate CHD risk (Framingham)</li> </ul>	U (6)
13.	<ul style="list-style-type: none"> <li>• Coronary angiography (catheterization or CT)</li> <li>• Stenosis of unclear significance</li> </ul>	A (7)
<b>Table 14. Risk Assessment: Preoperative Evaluation for Non-Cardiac Surgery</b>		<b>Appropriateness Criteria (Median Score)</b>
<b>Indication</b>		
<b>Low-Risk Surgery (Use of Vasodilator Perfusion CMR or Dobutamine Stress Function CMR)</b>		
14.	<ul style="list-style-type: none"> <li>• Intermediate perioperative risk predictor</li> </ul>	I (2)
<b>Intermediate- or High-Risk Surgery (Use of Vasodilator Perfusion CMR or Dobutamine Stress Function CMR)</b>		
15.	<ul style="list-style-type: none"> <li>• Intermediate perioperative risk predictor</li> </ul>	U (6)

<b>Table 15. Detection of CAD: Post-Revascularization (PCI or CABG)</b>		<b>Appropriateness Criteria (Median Score)</b>
<b>Indication</b>		
<b>Evaluation of Chest Pain Syndrome (Use of MR Coronary Angiography)</b>		
16.	<ul style="list-style-type: none"> <li>Evaluation of bypass grafts</li> </ul>	I (2)
17.	<ul style="list-style-type: none"> <li>History of percutaneous revascularization with stents</li> </ul>	I (1)

<b>Table 16. Structure and Function</b>		<b>Appropriateness Criteria (Median Score)</b>
<b>Indication</b>		
<b>Evaluation of Ventricular and Valvular Function</b>		
Procedures may include LV/RV mass and volumes, MR angiography, quantification of valvular disease, and delayed contrast enhancement		
18.	<ul style="list-style-type: none"> <li>Assessment of complex congenital heart disease including anomalies of coronary circulation, great vessels, and cardiac chambers and valves</li> <li>Procedures may include LV/RV mass and volumes, MR angiography, quantification of valvular disease, and contrast enhancement</li> </ul>	A (9)
19.	<ul style="list-style-type: none"> <li>Evaluation of LV function following myocardial infarction OR in heart failure patients</li> </ul>	U (6)
20.	<ul style="list-style-type: none"> <li>Evaluation of LV function following myocardial infarction OR in heart failure patients</li> <li>Patients with technically limited images from echocardiogram</li> </ul>	A (8)
21.	<ul style="list-style-type: none"> <li>Quantification of LV function</li> <li>Discordant information that is clinically significant from prior tests</li> </ul>	A (8)
22.	<ul style="list-style-type: none"> <li>Evaluation of specific cardiomyopathies (infiltrative [amyloid, sarcoid], HCM, or due to cardiotoxic therapies)</li> <li>Use of delayed enhancement</li> </ul>	A (8)
23.	<ul style="list-style-type: none"> <li>Characterization of native and prosthetic cardiac valves—including planimetry of stenotic disease and quantification of regurgitant disease</li> <li>Patients with technically limited images from echocardiogram or TEE</li> </ul>	A (8)
24.	<ul style="list-style-type: none"> <li>Evaluation for arrhythmogenic right ventricular cardiomyopathy (ARVC)</li> <li>Patients presenting with syncope or ventricular arrhythmia</li> </ul>	A (9)
25.	<ul style="list-style-type: none"> <li>Evaluation of myocarditis or myocardial infarction with normal coronary arteries</li> <li>Positive cardiac enzymes without obstructive atherosclerosis on angiography</li> </ul>	A (8)
<b>Evaluation of Intra- and Extra-Cardiac Structures</b>		
26.	<ul style="list-style-type: none"> <li>Evaluation of cardiac mass (suspected tumor or thrombus)</li> <li>Use of contrast for perfusion and enhancement</li> </ul>	A (9)
27.	<ul style="list-style-type: none"> <li>Evaluation of pericardial conditions (pericardial mass, constrictive pericarditis)</li> </ul>	A (8)
28.	<ul style="list-style-type: none"> <li>Evaluation for aortic dissection</li> </ul>	A (8)
29.	<ul style="list-style-type: none"> <li>Evaluation of pulmonary veins prior to radiofrequency ablation for atrial fibrillation</li> <li>Left atrial and pulmonary venous anatomy including dimensions of veins for mapping purposes</li> </ul>	A (8)

<b>Table 17. Detection of Myocardial Scar and Viability</b>		<b>Appropriateness Criteria (Median Score)</b>
<b>Indication</b>		
<b>Evaluation of Myocardial Scar (Use of Late Gadolinium Enhancement)</b>		
30.	<ul style="list-style-type: none"> <li>To determine the location and extent of myocardial necrosis including 'no reflow' regions</li> <li>Post-acute myocardial infarction</li> </ul>	A (7)
31.	<ul style="list-style-type: none"> <li>To detect post PCI myocardial necrosis</li> </ul>	U (4)
32.	<ul style="list-style-type: none"> <li>To determine viability prior to revascularization</li> <li>Establish likelihood of recovery of function with revascularization (PCI or CABG) or medical therapy</li> </ul>	A (9)
33.	<ul style="list-style-type: none"> <li>To determine viability prior to revascularization</li> <li>Viability assessment by SPECT or dobutamine echo has provided "equivocal or indeterminate" results</li> </ul>	A (9)