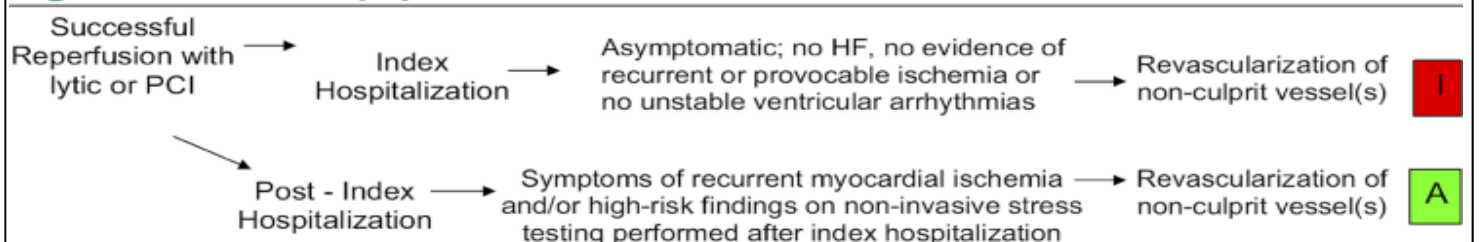
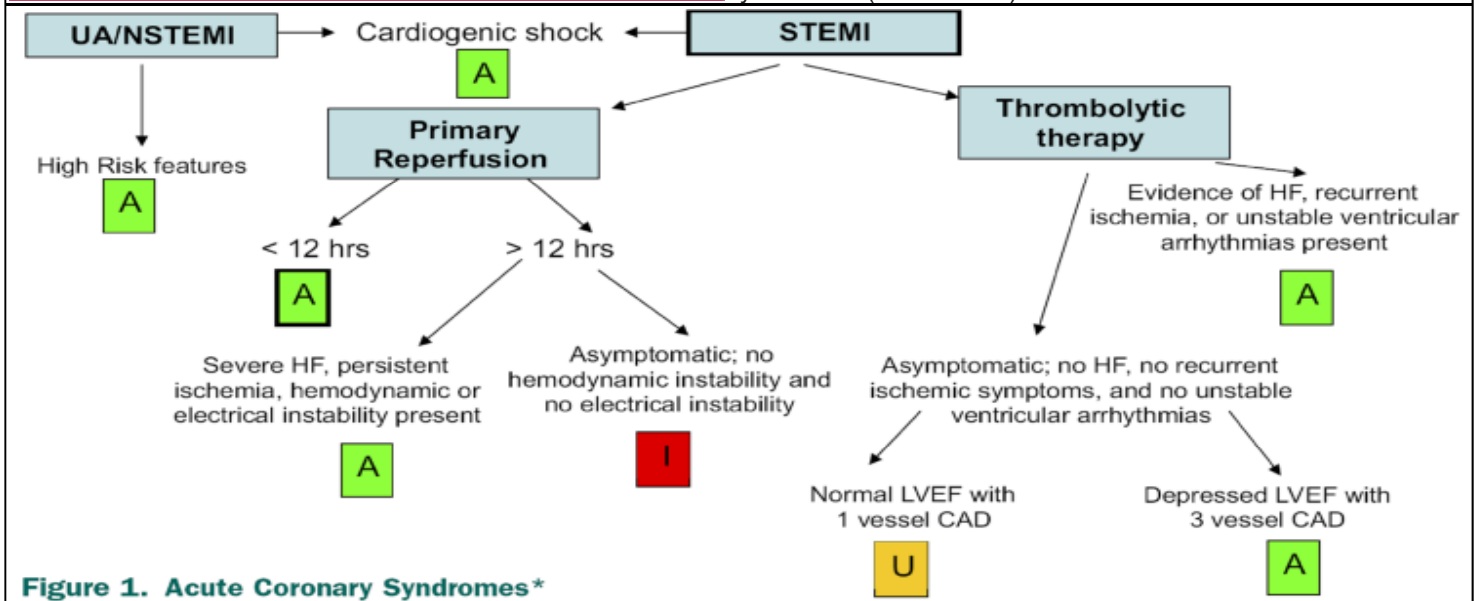


2009 Appropriateness Criteria for Coronary Revascularization

<i>*assuming medical treatment only</i> Table A. CAD Prognostic Index	Prognostic Weight (0-100)	5-Year Survival Rate (%)*	Table A2. Noninvasive Risk Stratification
Extent of CAD			High-Risk (greater than 3% annual mortality rate)
1-vessel disease, 75%	23	93	1. Severe resting left ventricular dysfunction (LVEF less than 35%)
>1-vessel disease, 50% to 74%	23	93	2. High-risk treadmill score (score less than or equal to -11)
1-vessel disease, ≥95%	32	91	3. Severe exercise left ventricular dysfunction (exercise LVEF less than 35%)
2-vessel disease	37	88	4. Stress-induced large perfusion defect (particularly if anterior)
2-vessel disease, both ≥95%	42	86	5. Stress-induced multiple perfusion defects of moderate size
1-vessel disease, ≥95% proximal LAD	48	83	6. Large, fixed perfusion defect with LV dilation or increased lung uptake (thallium-201)
2-vessel disease, ≥95% LAD	48	83	7. Stress-induced moderate perfusion defect with LV dilation or increased lung uptake (thallium-201)
2-vessel disease, ≥95% proximal LAD	56	79	8. Echocardiographic wall motion abnormality (involving greater than two segments) developing at low dose of dobutamine (less than or equal to 10 mg/kg/min) or at a low heart rate (less than 120 beats/min)
3-vessel disease	56	79	9. Stress echocardiographic evidence of extensive ischemia
3-vessel disease, ≥95% in at least 1	63	73	Intermediate-Risk (1% to 3% annual mortality rate)
3-vessel disease, 75% proximal LAD	67	67	1. Mild/moderate resting left ventricular dysfunction (LVEF equal to 35% to 49%)
3-vessel disease, ≥95% proximal LAD	74	59	2. Intermediate-risk treadmill score (-11 less than score less than 5)
Class I	CCSC		3. Stress-induced moderate perfusion defect without LV dilation or increased lung intake (thallium-201)
Ordinary physical activity does not cause angina, such as walking, climbing stairs, Angina (occurs) with strenuous, rapid, or prolonged exertion at work or recreation.			4. Limited stress echocardiographic ischemia with a wall motion abnormality only at higher doses of dobutamine involving less than or equal to two segments
Class II	Slight limitation of ordinary activity. Angina occurs on walking or climbing stairs rapidly, walking uphill, walking or stair climbing after meals or in cold, or in wind, or under emotional stress, or only during the few hours after awakening. Angina occurs on walking more than 2 blocks on the level and climbing more than one flight of ordinary stairs at a normal pace and in normal condition.		
Class III	Marked limitations of ordinary physical activity. Angina occurs on walking one to two blocks on the level and climbing one flight of stairs in normal conditions and at a normal pace.		
Class IV	Inability to carry on any physical activity without discomfort—anginal symptoms may be present at rest.		
Typical angina (definite)			Low-Risk (less than 1% annual mortality rate)
Clinical Classification of Chest Pain			1. Low-risk treadmill score (score greater than or equal to 5)
1) Substernal chest discomfort with a characteristic quality and duration that is 2) provoked by exertion or emotional stress and 3) relieved by rest or NTG.			2. Normal or small myocardial perfusion defect at rest or with stress*
Atypical angina (probable)			3. Normal stress echocardiographic wall motion or no change of limited resting wall motion abnormalities during stress*
Meets 2 of the above characteristics.			
Noncardiac chest pain			
Meets one or none of the typical anginal characteristics.			

*Although the published data are limited, patients with these findings will probably not be at low risk in the presence of either a high-risk treadmill score or severe resting left ventricular dysfunction (LVEF < 35%).



*The fact that the use of coronary revascularization for a particular condition is listed in this figure (appropriate, uncertain, inappropriate) does not preclude the use of other therapeutic modalities that may be equally effective. See the most current ACC/AHA UA/NSTEMI & STEMI guidelines. A indicates appropriate; I, inappropriate; U, uncertain

Figure 2. Low-Risk Findings on Noninvasive Imaging Study & Asymptomatic (without prior CABG)

Low Risk Findings on Noninvasive Study						Asymptomatic					
Symptoms						Stress Test Med. Rx					
Med. Rx											
Class III or IV Max Rx	U	A	A	A	A	High Risk Max Rx	U	A	A	A	
Class I or II Max Rx	U	U	A	A	A	High Risk No/min Rx	U	U	A	A	
Asymptomatic Max Rx	I	I	U	U	U	Int. Risk Max Rx	U	U	U	U	
Class III or IV No/min Rx	I	U	A	A	A	Int. Risk No/min Rx	I	I	U	U	
Class I or II No/min Rx	I	I	U	U	U	Low Risk Max Rx	I	I	U	U	
Asymptomatic No/min Rx	I	I	U	U	U	Low Risk No/min Rx	I	I	U	U	
Coronary Anatomy	CTO of 1 vz.; no other disease	1-2 vz. disease; no Prox. LAD	1 vz. disease of Prox. LAD	2 vz. disease with Prox. LAD	3 vz. disease; no Left Main	Coronary Anatomy	CTO of 1 vz.; no other disease	1-2 vz. disease; no Prox. LAD	1 vz. disease of Prox. LAD	2 vz. disease with Prox. LAD	3 vz. disease; no Left Main

Figure 3. Intermediate-Risk Findings on Noninvasive Imaging Study & CCS Class I or II Angina (no prior CABG)

Intermediate Risk Findings on Noninvasive Study						CCS Class I or II Angina					
Symptoms						Stress Test Med. Rx					
Med. Rx											
Class III or IV Max Rx	A	A	A	A	A	High Risk Max Rx	A	A	A	A	
Class I or II Max Rx	U	A	A	A	A	High Risk No/min Rx	U	A	A	A	
Asymptomatic Max Rx	U	U	U	U	A	Int. Risk Max Rx	U	A	A	A	
Class III or IV No/min Rx	U	U	A	A	A	Int. Risk No/min Rx	U	U	U	A	
Class I or II No/min Rx	U	U	U	A	A	Low Risk Max Rx	U	U	A	A	
Asymptomatic No/min Rx	I	I	U	U	A	Low Risk No/min Rx	I	I	U	U	
Coronary Anatomy	CTO of 1 vz.; no other disease	1-2 vz. disease; no Prox. LAD	1 vz. disease of Prox. LAD	2 vz. disease with Prox. LAD	3 vz. disease; no Left Main	Coronary Anatomy	CTO of 1 vz.; no other disease	1-2 vz. disease; no Prox. LAD	1 vz. disease of Prox. LAD	2 vz. disease with Prox. LAD	3 vz. disease; no Left Main

Figure 4. High-Risk Findings on Noninvasive Imaging Study & CCS Class III or IV Angina (without prior CABG)

High Risk Findings on Noninvasive Study						CCS Class III or IV Angina					
Symptoms						Stress Test Med. Rx					
Med. Rx											
Class III or IV Max Rx	A	A	A	A	A	High Risk Max Rx	A	A	A	A	
Class I or II Max Rx	A	A	A	A	A	High Risk No/min Rx	A	A	A	A	
Asymptomatic Max Rx	U	A	A	A	A	Int. Risk Max Rx	A	A	A	A	
Class III or IV No/min Rx	A	A	A	A	A	Int. Risk No/min Rx	U	U	A	A	
Class I or II No/min Rx	U	A	A	A	A	Low Risk Max Rx	U	A	A	A	
Asymptomatic No/min Rx	U	U	A	A	A	Low Risk No/min Rx	I	U	A	A	
Coronary Anatomy	CTO of 1 vz.; no other disease	1-2 vz. disease; no Prox. LAD	1 vz. disease of Prox. LAD	2 vz. disease with Prox. LAD	3 vz. disease; no Left Main	Coronary Anatomy	CTO of 1 vz.; no other disease	1-2 vz. disease; no Prox. LAD	1 vz. disease of Prox. LAD	2 vz. disease with Prox. LAD	3 vz. disease; no Left Main

Figure 5. Method of revascularization of Advance Coronary Artery Disease

	CABG			PCI		
	No diabetes and normal LVEF	Diabetes	Depressed LVEF	No diabetes and normal LVEF	Diabetes	Depressed LVEF
Two vessel coronary artery disease with proximal LAD stenosis	A	A	A	A	A	A
Three vessel coronary artery disease	A	A	A	U	U	U
Isolated left main stenosis	A	A	A	I	I	I
Left main stenosis and additional coronary artery disease	A	A	A	I	I	I