Clinical Practice Committee
Post CABG/PCI Testing

Last Updated: 01/22/07

Sources:
ACC/AHA/SCAI 2005 Guideline Update for Percutaneous Coronary Intervention.
www.acc.org/qualityandscience/clinical/topic/topic.htm
(Strength of Recommendation: C, consensus guideline)

Clinical Question:
In patients who have undergone percutaneous coronary intervention (PCI) or coronary artery bypass surgery (CABG) and who remain asymptomatic, does routine exercise testing result in improved patient outcomes?

Bottom Line:
While recurrent stenosis or progression of coronary disease is a significant concern in asymptomatic patients who have undergone coronary revascularization procedures, there is no evidence that a strategy of routine exercise testing improves patient-oriented outcomes.

Synopsis:
The major limitation of PCI is restenosis, and it is estimated that up to 25% of patients who do develop restenosis do not have symptoms. Early experience with balloon angioplasty revealed a restenosis rate of 30-50%; however, recent experience utilizing drug eluting stents demonstrates a restenosis rate of 8-10%. The American College of Cardiology (ACC) clinical practice guidelines do not recommend routine exercise testing for asymptomatic patients after PCI except in patients at particularly high risk – significant LV dysfunction, multiple vessel intervention, proximal LAD disease, previous cardiopulmonary arrest, left main disease, suboptimal PCI results, diabetes and hazardous occupations (ACC Class IIb recommendation – “conflicting evidence and/or divergence of opinion about usefulness/efficacy of procedure”). Stress EKG is an insensitive predictor and thus if patients do undergo stress testing it should be performed with radionuclide imaging or echocardiography.

Similarly there is insufficient evidence to support regular periodic stress tests in patients who have undergone CABG. The ACC gives routine stress testing in asymptomatic patients after CABG a Class III recommendation (“conditions for which there is evidence and/or general agreement that a procedure/treatment is not useful/effective and in some cases may be harmful”).