Top Ten Things To Know
2011 Coronary Artery Bypass Graft Surgery Guidelines

1. This update of the 2004 coronary artery bypass graft (CABG) surgery guidelines represents a first-time collaboration between two writing groups – CABG and percutaneous coronary intervention (PCI) - in the area of revascularization. Additional collaboration came from the Stable Ischemic Heart Disease (SIHD) guideline writing committee.

2. Goals for revascularization were identified to be improvement in survival and relief of symptoms, with survival generally being the priority when choices are considered.

3. The Heart Team Approach, a multidisciplinary approach using an interventional cardiologist and a cardiac surgeon for decision making, is a Class I, LOE C recommendation for patients with unprotected left main or complex coronary artery disease (CAD) when the optimal strategy is not straightforward.

4. SYNTAX scores (Synergy between Percutaneous Coronary Intervention with TAXUS and Cardiac Surgery) – as surrogates for the extent and complexity of CAD - were considered to be reasonable to use to inform revascularization decisions.

5. CABG to improve survival is recommended for patients with significant (≥50% diameter stenosis) left main coronary artery stenosis.

6. CABG to improve survival is beneficial in patients with significant (≥70% diameter) stenoses in 3 major coronary arteries (with or without involvement of the proximal LAD artery) or in the proximal LAD plus 1 other major coronary artery.

7. When compared to patients receiving only medical therapy, GDMT (guideline–directed medical therapy) used concurrently with CABG may substantially improve long-term outcomes.

8. Recommendations address anti-platelet therapy peri- and post-operatively and include:
   - the use of aspirin pre-operatively
   - the timing for the discontinuation of clopidogrel and ticagrelor before elective and acute CABG
   - the use of aspirin post-operatively
   - the use of clopidogrel as an alternative post-operatively in aspirin-intolerant or allergic patients

9. Patients with extensive CAD (and many with prior PCI) will become the recipients of on- and off-pump CABG as surgical techniques and medical therapies continue to improve. The future of CABG will focus on improving results in high-risk patients and making CABG for elective revascularization less invasive. Promising minimally invasive techniques include the use of robotics and anastomotic connectors, intraoperative imaging, hybrid procedures, and protein and gene therapies.

10. Training the next generation of surgeons will most likely include the increasing use of surgical simulators, much like the training used for military and airline personnel. The potential exists for this technology to have a major impact on surgical training of the future.

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