Other News

PCI Guideline Update

A hallmark of the efficacy of percutaneous coronary interventions (PCI) is reflected in the extraordinary rise in number of procedures performed in the last decade. Stent insertion in the U.S. alone jumped by 150% in that period, and more than doubled among older patients. The data now supports what clinicians see in daily practice: PCI improves outcomes, extends life—and quality of life—as it reduces indirect costs of disability (lost work time, decreased productivity, etc.)

The guidelines, last revised in 2001, now reflect emerging insights from clinical trials, changing levels of evidence (and the growing sophistication in applying the standards of evidence-based medicine), and evolving expert consensus.

Among the central goals of guideline revision is promotion of the "90 minutes from door-to-balloon" concept, according to Sidney C. Smith, Jr., MD, Director of the Center for Cardiovascular Science and Medicine at the University of North Carolina at Chapel Hill, and chair of the ACC/AHA PCI writing committee. Current state-of-the-science demonstrates that patients truly benefit from rapid access to PCI, Dr. Smith said. "We have consistently looked at where the science says we should be, and challenged ourselves."

Among the revisions there are a number of pivotal new guidelines, cited here with class of ACC/AHA recommendation (ranked by Roman numerals) and level of evidence (ranked alphabetically).

Measure troponins in patients with MI during/after PCI. And follow-up, as a routine, with biomarker levels 8-12 hours post-procedure. These recommendations reflect new knowledge of the role of troponins and revise the earlier guideline which made no mention of troponins and offered no recommendation for post-procedure biomarker follow-up (Class I/level of evidence B).

Early PCI for UA/NSTEMI patients is recommended. This guideline is now consistent with the ACC/AHA 2002 UA/NSTEMI guidelines, and encompasses patients with recurrent ischemia despite treatment and/or other markers of CV instability (Class I/level of evidence A).

Administer a pre-PCI loading dose of clopidogrel. Strong evidence of efficacy supports a 300 mg loading dose of clopidogrel given at least 6 hours before PCI. Clopidogrel should then be continued at 75 mg daily in all patients receiving stents (Class I/Level of evidence A/B).

(Duration of therapy varies based on specific stent implanted. See: http://www.acc.org/clinical/guidelines/percutaneous/update/PCIPocketGuideupdate.pdf)

Low-molecular-weight heparin is a "reasonable alternative" to unfractionated heparin in UA/NSTEMI and STEMI patients undergoing PCI. Although carrying slightly lower levels of evidence, this recommendation reflects advances in anticoagulation pharmacology (Class IIa/level of evidence B).

Cardiac care centers must either institute or improve peer review and quality assurance programs. As PCI has increased in both numbers of procedures performed and numbers of centers performing PCI, the need is now paramount to monitor operator skill and performance as well as institutional track records. The new guidelines recommend that elective PCI be performed by operators who perform >75 procedures a year in centers where at least 400 procedures are conducted annually (Class I/level of evidence B). Centers are encouraged to establish rigorous review of quality and outcomes, participate in national data registries, and measure in-house statistics against national benchmarks (Class I/level of evidence B).

"These guidelines have applications—and implications—far beyond the practice of interventional cardiology," said William W. O'Neill, MD, chairman of cardiology for the William Beaumont Hospital System in Royal Oak, MI. "It's imperative that physicians and hospital administrators carefully review the guidelines," Dr. O'Neill said, both for implementing practice standards and "because [these guidelines] may be used to grade performance" in the future.

http://www.acc.org/clinical/guidelines/percutaneous/update/index_summaryupdate.pdf