

The SCAI Annual Scientific Sessions
in Partnership with **ACC i2 Summit**
March 29 - April 1, 2008 • CHICAGO



EMBARGOED FOR RELEASE
Saturday, March 29, 8:00 AM CDT
Presentation Number: 2401-13

CONTACT:
Kathy Boyd David
SCAI
Cell: 717-422-1181
pr@scai.org

Amy Murphy
ACC
Direct: 202-375-6476
Cell: 240-328-4549
amurphy@acc.org

STUDY FINDS PCI SAFE, EFFECTIVE DESPITE OFF-SITE CARDIAC SURGERY
Quality of PCI program is critical

CHICAGO, Ill. (March 29, 2008) — Percutaneous coronary intervention (PCI) can be performed safely and successfully in medical centers without on-site cardiac surgical back-up, provided programs are well-organized, highly skilled and committed to quality. These are the findings of the largest clinical study ever to compare PCI programs that have on-site cardiac surgery to PCI programs that transfer patients to a surgical hospital in case of emergency.

The study was reported today in a Late-Breaking Clinical Trials session at the SCAI Annual Scientific Sessions in Partnership with ACC i2 Summit (SCAI-ACCi2) in Chicago. SCAI-ACCi2 is a scientific meeting for practicing cardiovascular interventionalists sponsored by the Society for Cardiovascular Angiography and Interventions (SCAI) in partnership with the American College of Cardiology (ACC).

The study's findings, though reassuring, should not be interpreted as an endorsement of "boutique" angioplasty, said lead investigator Michael A. Kutcher, MD, director of interventional cardiology at Wake Forest University Health Sciences, Winston-Salem, NC.

"These medical centers are very accomplished and represent the premier programs offering PCI with off-site cardiac surgical back-up," Dr. Kutcher said. "And they are doing angioplasty for the right reasons: to improve outcomes for heart attack patients and to better serve patients in remote geographic areas."

Performing PCI at medical centers with off-site cardiac surgical back-up is controversial. Clinical guidelines accept this practice for patients who are experiencing a heart attack—so-called primary PCI—but advise against it in elective PCI, when the procedure is less urgent. However, medical centers that offer primary PCI argue they need to include elective PCI in the mix in order to survive economically and to keep staff skill levels high. Further complicating the issue: Emergency bypass

surgery is rare—it's needed in about 0.3 percent of PCI patients—but the mortality rate is high, about 13 percent.

For the new study, Dr. Kutcher and co-investigators analyzed data from the NCDR CathPCI Registry (an ACC initiative conducted in partnership with SCAI) on 9,029 patients treated at 61 medical centers with off-site cardiac surgical back-up and 299,132 patients treated at 404 medical centers with on-site cardiac surgery programs. Programs with off-site surgical back-up tended to be smaller—more than half of the medical centers had fewer than 200 beds—and to perform fewer PCIs. Only 30 percent of off-site programs performed more than 200 PCI procedures annually, and only 43 percent performed more than 36 primary PCIs annually, as compared with 94 percent and 80 percent of on-site centers, respectively ($p < 0.0001$). In addition, off-site hospitals treated higher-risk patients: Some 41 percent of patients treated at off-site centers were experiencing a heart attack at the time of PCI, as compared with 29 percent of patients treated at on-site centers ($p < 0.0001$).

Still, the two types of hospitals had similar rates of procedural success (94 percent for off-site centers vs. 93 percent for on-site centers), overall complications (6.4 percent vs. 6.3 percent, respectively), emergency surgery (0.31 percent vs. 0.37 percent), and mortality with emergency surgery (13.64 percent vs. 12.59 percent). In a risk-adjusted analysis, hospitals with on-site cardiac surgery were more likely to perform emergency bypass surgery, but overall in-hospital mortality was no different in the two groups (odds ratio, 1.08 for on-site vs. off-site centers, $p = 0.507$).

That the hospitals in this study voluntarily chose to submit data to the NCDR is one sign of their commitment to quality, Dr. Kutcher said. Two additional statistics are telling: 92 percent of PCI centers with off-site surgery were prepared to do PCI 24 hours a day, seven days a week, and when treating patients with heart attack, the time from patient arrival at the hospital until blood flow was restored in the coronary artery was a median of 1.4 hours at hospitals with off-site surgical back-up, as compared with 1.5 hours for PCI centers with on-site surgery.

“The NCDR database provided an excellent opportunity to look at contemporary angioplasty practice patterns in the U.S. The safety and effectiveness of PCI programs with off-site cardiac surgery is a very important question, and we need ongoing information to reach evidence-based answers,” Dr. Kutcher said. “However, the results of this study should not be used to encourage the wild expansion of more off-site PCI programs; rather they should be used to confirm the appropriateness of this strategy for programs that have made a strong commitment to excellent organization and data submission for quality assurance.”

Dr. Kutcher will present the results of this study on Saturday, March 29 at 9:15 a.m. CDT in the Grand Ballroom, S100.

###

About SCAI

Headquartered in Washington, DC, the Society for Cardiovascular Angiography and Interventions is a 4,000-member professional organization representing invasive and interventional cardiologists in over 60 nations. SCAI's mission is to promote excellence in invasive and interventional cardiovascular medicine through physician education and representation, and advancement of quality standards to enhance patient care. SCAI's annual meeting has become the leading venue for education, discussion, and debate about the latest developments in this dynamic medical specialty.

About ACC

The American College of Cardiology is leading the way to optimal cardiovascular care and disease prevention. The College is a 34,000-member nonprofit medical society and bestows the credential Fellow of the American College of Cardiology upon physicians who meet its stringent qualifications. The College is a leader in the formulation of health policy, standards and guidelines, and is a staunch supporter of cardiovascular research. The ACC provides professional education and operates national registries for the measurement and improvement of quality care.