



Pittsburgh Regional Healthcare Initiative

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[Preparing for the Cardiac Forum October 6](#)

PRHI steps up regional focus on cardiac care



When President Clinton checked in for coronary artery bypass graft (CABG) surgery last month, the prospect of heart disease “came home” for many Americans. CABG, one of medicine’s most advanced and complicated procedures, has become almost commonplace. In Pennsylvania in 2002, it was performed about 16,500 times. CABG also accounts for the nation’s largest expenditure in cardiovascular medicine.

Clinton’s surgery prompted certain questions. Reporters seized upon public reports, which seemed to indicate that New York Presbyterian Hospital, where his surgery was performed, had slightly higher rates of complications and mortality following CABG surgery than other hospitals in the same cohort. But did this knowledge make Clinton safer—or less safe? What do such reports really tell consumers? Do they help other clinicians learn how to improve?

Reporting vs. learning

CABG outcomes (generally, mortality, length of hospital stay and costs) are publicly reported in several states including California, Texas, New York and Pennsylvania. The information collected has led to several important insights, for example, that

centers performing more than 200 CABG surgeries and physicians performing more than 100 per year produce better patient outcomes.

But in Pittsburgh, the PRHI Cardiac Working Group has taken reporting a step further, turning it into a regional learning system through the Cardiac Registry.

Modeled after a similar initiative, the Northern New England

Cardiovascular Disease Study Group

(NNE), the PRHI Cardiac Registry includes

data from 12 of 13 area cardiac centers, plus one in an outlying region. This collaborative data pool examines processes and outcomes of care across a wide region, enabling surgical teams to learn from thousands of cases at numerous facilities, instead of only their own. At forums three times a year, participants have the chance to discuss what they are learning and share knowledge and experiences to improve care. Forum topics have included depression, anesthesia, perfusion, the use of anticoagulants, and glycemic control—all thought to have impact on patient outcomes.

For two years now, the PRHI Cardiac Registry has been tracking four specific areas affecting surgical outcomes (see box) with encouraging results. More recently, the registry has been used to examine outcomes with the pre-operative use of clipidrogel (Plavix) with aspirin, and the benefits of using specific techniques to prime the bypass pump (see *PRHI Executive Summary*, October/November 2003.)

What is being learned? One example involves pre-operative aspirin use. Just a few years ago, bolstered by medical guidelines, clinicians believed aspirin should be stopped 5 days before surgery to reduce the risk of bleeding. However, both NNE and PRHI registries have confirmed that continued aspirin use right up to the day of surgery actually results in better outcomes.

Learning vs. application

And yet that knowledge only becomes powerful when it is actually applied. Primary care physicians, cardiologists and

hospital pre-admissions sheets must provide correct pre-operative instructions. Patients need to understand whether continuing on aspirin is right for them. In other words, to accommodate the new knowledge, systems must be redesigned to accept it. Everyone must participate in the redesign.

Perfecting care is not possible with the registry and forums alone. Recognizing this, PRHI will be meeting with each facility individually to determine how we can best support each facility's improvement efforts. PRHI is prepared to help with facility-specific analyses of data, support with process improvements and use real-time problem solving and root cause analysis to improve care.

New learning opportunities

The Cardiac Working Group is also creating opportunities for "on the ground" shared learning. The group is encouraging facilities to host "go-and-see" sessions where Cardiac Working Group members can visit other facilities and observe processes and improvements.

Learning and improvement across the region will accelerate when systems are redesigned to accept and apply new knowledge. PRHI and the Cardiac Working Group are committed to this continuous cycle.

Just as the eyes of the nation are on a former President's recovery, the eyes of our region's cardiac clinicians are on the outcomes of every CABG patient in Southwestern Pennsylvania. ⌘

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Four processes of care that can lead to better outcomes following CABG

- ❖ Encourage pre-operative aspirin use.
- ❖ Maintain adequate control of heart rate at induction of anesthesia.
- ❖ Use internal mammary artery graft as a harvest site.
- ❖ Avoid excessive dilution of the blood during cardiac surgery.

