



Pittsburgh Regional Healthcare Initiative

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Naida Grunden, editor

Spotlight: Cardiac Registry

Linking care to outcomes through scientific experimentation

[The surgeons of the Northern New England (NNE) Cardiovascular Disease Study Group], instead of hiding their data on variation in outcomes and retreating into competitive behaviors, these dedicated professionals chose to work together to understand why they differed and to learn from each other, through visiting, reflection, and exchange, how they might improve the entire process of cardiovascular surgery.”

—Dr. Don Berwick, director of the Institute for Healthcare Improvement

In what has been a particularly turbulent year for cardiovascular surgeons and open-heart programs throughout Southwestern Pennsylvania, clinicians could have argued they had too little time to consider what is needed to pursue a platform for regional improvement. But they didn't do that. Instead, in increasingly well attended Cardiac Working Group meetings, the physicians, technicians, administrators and others who run the region's 13 cardiac surgery centers have pushed through an ambitious Cardiac Registry. Working together across competing institutions, those responsible for cardiac surgery in the region have agreed to track 89 data fields to determine which processes of care lead to quicker, more complete patient recovery.

“We'll be able to actually link processes to outcomes,” says Dr. Dennis Schilling, PRHI's Clinical Coordinator. “We can quickly test our hypotheses about which clinical decisions are most likely to bring about optimal recovery—without waiting years for the next clinical study.”

Chief among the performance measures doctors want to assess:

- ✓ Patient ages, gender and race
- ✓ Total CABG cases per month, regionally
- ✓ Observed vs expected mortality rate
- ✓ Nonfatal complication rate
- ✓ Mortalities by priority of surgery
- ✓ Primary causes of mortalities
- ✓ Internal mammary artery use per month; by gender; by age; by priority of surgery; % of mortalities
- ✓ Reasons IMA use deferred
- ✓ Aspirin within 5 days of surgery; % of mortalities; % re-op for bleed in aspirin patients
- ✓ Pre-op heart rates

SWPA's Cardiac Facilities

Allegheny General Hospital

Butler Area Hospital

DuBois Regional Medical Center

Jefferson Hospital

Mercy Hospital of Pittsburgh

St. Clair Hospital

The Medical Center of Beaver

UPMC Passavant

UPMC Presbyterian

UPMC Shadyside

Washington Hospital

Western Pennsylvania Hospital

Westmoreland Regional Hospital

- ✓ Average pre-op heart rate and atrial fibrillation
- ✓ Hematocrit on bypass
- ✓ Return to the operating room
- ✓

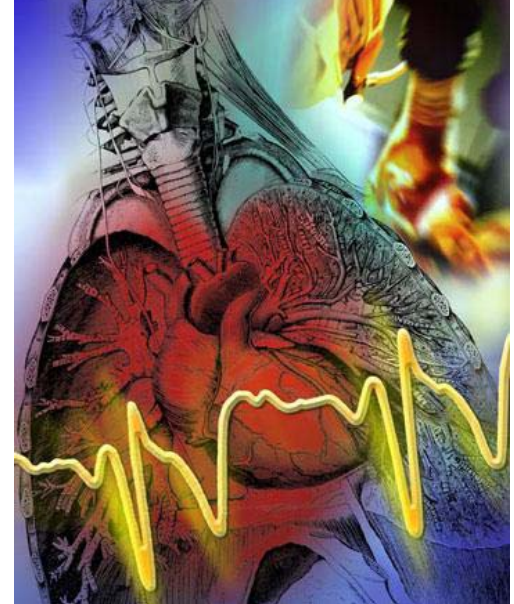
The Cardiac Registry was modeled after the one created by Northern New England Cardiovascular Disease Study Group, a consortium of four hospitals. PRHI's Cardiac Registry, to begin operating in early 2003, will track more processes over more hospitals, holding promise for a treasure trove of new knowledge.

"A cardiovascular surgeon performs an average of 200 CABGs in a year," says Dr. Jon Lloyd, PRHI's Medical Advisor. "Each year, 6000 such cases are performed across the region. Surgeons who participate with the cardiac registry and cardiac forums can now access the greater intelligence that exists in the data and in our shared experience." ☞

CMS award for Cardiac Registry and Perfecting Patient Care Learning Lines

CMS awarded PRHI a 3-year contract for a regional improvement effort in patient safety and clinical outcomes. The contract will allow PRHI to deploy a clinical patient care registry and shared learning system across all 13 hospitals in the region performing coronary artery bypass surgery (CABG). The objective of the registry is to reduce the rates of in-hospital complications, mortality and readmissions.

The contract will also help fund in-depth testing of the Pittsburgh Perfecting Patient Care (PPC) System, (derived from the Toyota Production System), on two cardiac units*. These units will incorporate the use of the cardiac registry with state-of-the-art infection and medication error reporting systems as they establish PPC Learning Lines. On the Learning Lines, problems of healthcare delivery will be solved, one by one, by the people doing the work, at the point of patient care. ☞



✧ ***Cardiac Working Group.*** PRHI partner physicians and other cardiac care experts constructed the PRHI Cardiac Care Improvement Registry to measure key processes of care and how they link to patient outcome. Currently 12 of the region's 13 cardiac centers participate in the Registry and the quarterly Cardiac Forums, held to discuss the results. **Contact: Geoff Webster**, Assoc. Director, Working Group/Registries Team Leader, 412-456-0973 websterchc@stargate.net.

