Pittsburgh Regional Healthcare Initiative

PRHI Executive Summary

Controlling depression seems to improve outcomes

Cardiac Forum covers anesthesia, mental health

On February 10, 27 physicians representing 25 organizations convened at UPMC Shadyside Hospital for PRHI Cardiac Forum #5. Elizabeth Concordia, President and Chief Executive Officer of UPMC Presbyterian–Shadyside, welcomed the group, which promotes regional improvement of patient outcomes following coronary artery bypass graft (CABG) surgery. In the largest turnout to date, all came to learn from each other in a safe, collaborative environment.

PRHI Cardiac Registry: NNE Perspective

The keynote speaker was **Dr. Stephen K. Plume**, professor emeritus of surgery and family and community medicine at Dartmouth Hitchcock Medical Center, Lebanon, New Hampshire and one of the founders of Northern New England (NNE) Cardiovascular Disease Study Group.

Dr. Plume noted, "HCFA (now CMS) does sometimes come up with good data that can stimulate improvement."

This was the case 16 years ago when surgeons in New England received letters from HCFA stating their mortality rates were statistically higher than

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March 2004

Inside:

Progress and challenges

Meetings: moving 'em on out

The coffee and cream cheese are tepid, the bagels not so fresh. Welcome to the monthly meeting of the Patient Safety Committee, required under Pennsylvania's Act 13. Department leaders sit in chairs around a table, doors closed, and consider problems that have come to light since last month's meeting. Discussion ensues, and actions are proposed, usually in the absence of the people who were there when the problem occurred. After an hour or two, the meeting's

Sound familiar?

Starting next month, the Patient Safety Committee meetings at LifeCare Hospitals of Pittsburgh will take place, at least in part, on the floor of the hospital, where the care of patients occurs. This 155-bed hospital, the largest facility in the LifeCare national system, meets the special needs of both medically complex patients and those in need of behavioral health programs for 25 days or more. The issues of safe medication administration and an infection-free environment are particularly important for their patients.

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PRHI is a consortium of those who provide, purchase, insure and support health care delivery in Southwestern Pennsylvania. Together, we are working to achieve:

✧ *Zero hospital-acquired infections.* ✧ *Zero medication errors.*

✧ *The world's best patient outcomes in: cardiac surgery; obstetrics; diabetes and depression.*

From page one

Cardiac Forum covers anesthesia, mental health

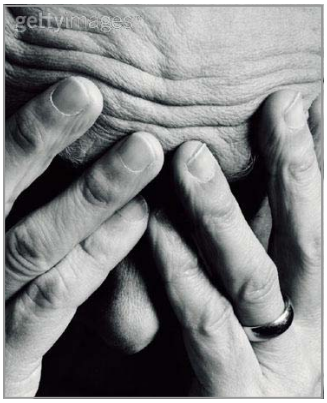
expected. While locally validated, the data provided no insight for improvement. They discovered that the alternative to frustration was collaboration.

The NNE was formed through the participation of six hospitals widely scattered over New England for the purpose of continuous learning and care improvement in the region. Site visits by a multidisciplinary team including a process engineer, quality improvement education under the direction of Don Berwick, and a regional registry for improvement propelled the NNE to its position of the best performing regional model in the nation.

Dr. Plume was impressed with the maturity of the relatively new group of improvement scholars in PRHI's Cardiac Working Group. The sheer volume of the CABG cases analyzed, along with the growing sense of community in our region creates the potential for learning at a rate even greater than NNE's. This learning may also result in accelerated improvement of outcomes.

Dr. Plume then stated, "If the four processes of care—highlighted in NNE literature and adopted by the PRHI Cardiac Working Group—were fully adopted, the region might expect a mortality rate of around 1% for isolated CABG surgery. That's half of what is currently reported."

Although it took the NNE about eight years before they could be comfortable with head-to-head comparisons of CABG outcomes, the PRHI cardiac community may be on a faster track. Dr. Plume was stimulated by what he saw during the day of his visit, and encouraged the PRHI Cardiac Working Group to continue its local efforts and collaboration with the NNE as a partner.



Unseen Confounders to Cardiac Care

Dr. Bruce Rollman, Associate Professor of Medicine, Psychiatry, Health Policy and Management, Center for Research on Health Care, Division of General Internal Medicine, University of Pittsburgh School of Medicine outlined the profound effect of the frequently undiagnosed or under-treated problem of depression following CABG surgery.

"Depression can be a significant risk factor for unfavorable outcomes," said Dr. Rollman. Depression and coronary artery disease have a unique relationship in that any increase on the rate of either one results in a rise in the other. Postoperative CABG care often suffers in the presence of depression. The medical literature documents treatment failures, readmissions and increased long-term mortality rates for depressed patients. Dr. Rollman's current study, "Bypassing the Blues," is an NHLBI-Funded, citywide partnership to examine the impact of treating post-CABG depression on clinical outcomes. Participants include Allegheny General Hospital, Mercy Hospital Heart Institute, UPMC-Presbyterian, UPMC-Shadyside, VA Medical Center, and West Penn Allegheny Hospital.

Dr. Rollman notes, "If we understand the rate of depression and its effect on CABG outcomes, the next step is to understand how effective treatment can improve post-CABG outcomes for the depressed patient."

The February 23 *Wall Street Journal* article, "A little known link: depression and heart disease," by Tara Parker-Pope, indicates that the public is also becoming aware of this important factor of co-morbidity.

A Cardiac Anesthesiologist's Perspective

Cardiac teams in our region have come to realize that CABG surgery is an ensemble performance, not a solo effort by the cardiovascular surgeon. The last Cardiac Forum highlighted the important role of the perfusionist and how it affects care.

This forum focused on the role of the anesthesiologist. **Dr. Erin Sullivan**, Associate Professor of Anesthesiology, University of Pittsburgh, School of Medicine, Associate Chief Anesthesiologist, Director, Cardiothoracic Anesthesiology, UPMC Presbyterian presented her perspective on the use of perioperative beta-blockade in CABG surgery. Dr. Sullivan cited landmark studies in the 40-year history

of beta-blockade and its cardio-protective effects.

"The use of perioperative beta-blockade is not without controversy," says Dr. Sullivan. While older drugs were sometimes contraindicated, recent literature suggests that most patients tolerate newer beta-1-selective antagonists.

Dr. Sullivan concluded that perioperative beta-blockade is effective for patients at risk for coronary artery disease and non-cardiac surgery. Dr. Sullivan cites the importance of further studies to investigate:

- ✧ The importance of perioperative beta-blockade for CABG surgery patients.
- ✧ Whether the combination of perioperative beta-blockade and thoracic epidural anesthesia is beneficial.

One by One Protocol

Dr. Forozan Navid, cardiovascular surgeon of the Raj Cardiovascular Association, shared UPMC Shadyside's plan to assess preoperative risk with patients as a standard of care. The team referred to this process change as "high risk patient care," but they plan to carry preoperative risk assessment one step further. Patient care protocols are being developed so treatments and standing order sets are carefully matched to the patient's preoperative risk.

"We are proud of our patient care, and now we will be better positioned to respond to our specific patients' needs," said Dr. Navid. His team looks forward to presenting outcome measures at a future forum.

Hidden Barriers to CABG Surgery Perfection

Dr. Michael Culig, cardiovascular surgeon of Pittsburgh Cardiothoracic Associates, posed the question, "Does the concomitant use of aspirin and clopidogrel increase the risk of post operative bleeding?"

Circulating cells in the blood called platelets are essential in the complicated biochemical processes of blood clotting. The complication of bleeding following CABG surgery may be the result of the patient's inability to successfully form the clots at the microsurgical sites. About 14.5 % of regional patients received BOTH aspirin AND clopidogrel (each potent antiplatelet agents) within five days of surgery. These facts combine to form a complicated problem for CV Surgeons, and the surgeons must decide on the courses of action for these problems. The CWG registry shows post operative bleeding happens 2.3 times more in the patients that receive both drugs, but the overall incidence of bleeding is so low that the variation is statistically insignificant. The decision to infuse additional platelets to avoid bleeding is made at a statistically higher rate for those patients who receive both drugs. We hope the growing registry will provide us the knowledge on how to deal with these types of problems by harnessing the experiences of the region.

Future Plans

The PRHI Cardiac Working Group is currently seeking a host for the spring 2004 forum. At the time of the forum the CWG hopes to convene an Executive Leadership Committee meeting with two voting representatives – one administrative and one clinical (CV surgeon) – from each facility of the Cardiac Working Group . The importance of the executive meeting cannot be understated as the Cardiac Working Group is now approaching the second anniversary of the first Business Associate Agreements for participation. The term of these agreements is three years.

For information, please call Dennis Schilling, PharmD, PRHI Clinical Coordinator, at 412-535-0292, Ext. 116.

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Meetings: moving 'em on out

First things first

Because medication errors and infections can have such a devastating effect on their patients, for the past year, LifeCare has been generating "Daily Reports" for all leaders. These reviews describe medication problems identified by staff—right down to the latent conditions that might lead to an error. They're in the process of doing the same kind of identification with infection. Because these data are usually only 24 hours old, the details can be related and the conditions that led to the problem can be addressed right away.

"One nurse racked up over five miles on her pedometer in one shift. When you see—really see—how work currently has to be done, you stop wondering why and start thinking about ways it could be different and better, for nurse and patient."

—Marty Kurth, RN
PRHI Team Leader

As a result, LifeCare has made gains in medication safety. In 2002, only 167 medication errors reached their internal information system, 71% of which reached the patient (C, D & E errors). In 2003, two things happened: information on incidents increased five-fold; and less than 28% of errors reached the patient. Also, information entered about potential problems (A & B errors) increased—from 23% in 2002 to 72% in 2003. Errors did not increase: information about them did. Increasing the flow of information about errors and potential errors can allow a clearer picture of underlying system problems to emerge, where they can be dealt with more quickly.

Moving on out with meetings

Recently 15 LifeCare leaders and staff members completed PRHI's intensive, week-long Perfecting Patient Care (PPC) University, offered at their site by PRHI. One central tenet of the PPC system is close observation, a challenge to workers, especially managers, to go visit the "shop floor" in person to see how people actually do the work.

Among those who went to the floor to observe staffers doing their work were CEO Cliff Orme, Risk Manager Carolyn Griffin, Director of Professional Services Christine Quinn, and Chief Clinical Officer Elaine Hatfield.

"We found more than we were looking for," said Quinn. "We discovered lots of things we could be doing to make it easier for people to do their work."

Others commented on their observations:

I saw that nurses work hard and do a good job.

They have to do a lot of running around. It wastes a lot of their time.

They didn't always have the tools they needed on hand to get the job done.

Next month's Patient Safety Committee will be different in several ways. It will include a wider cross-section of staff members, and they will go out on a guided observation somewhere in their own hospital, to see how work is actually done. Nurses may find themselves observing pharmacists, and pharmacists observing nurses. Not only do the observations promote a deeper understanding of the problems, but a deeper respect for the professionalism each person brings to the work.

PRHI Team Leader, Marty Kurth says, "In one experiment at another hospital, a nurse racked up over five miles on her pedometer in one shift. When you see—*really see*—what people have to do to get their work done, you stop wondering why and start thinking about ways it could be different and better for nurse and patient."

Case in point

From meeting to problem-solving: a very recent example

Once a week for an hour, the MedMARx committee at LifeCare meets to hear about medication problems that have occurred that week across the entire institution, and consider ways to fix them. On the committee are LifeCare's CEO, Cliff Orme, and other senior administrators including the risk manager, nurse managers, pharmacy representatives, educators, and a house physician.

One nurse asked about how pharmacy orders are verified. She suspected that problems catalogued as *omissions* or *delays* might really be problems communicating whether an order had actually been received in the pharmacy. Maybe every floor wasn't processing pharmacy orders the same way.

During that meeting, something clicked—or snapped.

Sometimes an empty conference room signifies that people are out on the floor observing and solving problems—"where the action is."

No longer content to count the numbers in a meeting room, the group decided to disband on the spot, split into four groups, and go immediately to the four nursing units to observe the entire transcription process for 30 minutes. The objective: *find out what the problem really was*.

Later that afternoon, the committee regrouped to compare what they'd learned. Their findings surprised them. Processes for sending orders were not working the way they were supposed to. Some further digging revealed why.

LifeCare recently invested in a system that enabled copy machines on the nursing units to scan prescriptions to e-mail directly to the pharmacy. Scanned orders arrive in the pharmacy in much more legible condition than faxes. The hidden problem: e-mailed confirmations from the pharmacy were not easy to find, open, print, and place in patients' charts. There was confusion.

With input from people on the floor and people in the Information Services Department, the group designed an experiment right then and chose one unit for trial. On that unit, confirmation sheets from the pharmacy print out automatically now. Unit secretaries place them in patients' charts, and nurses have the verification right there every time: there's no confusion—it's *yes* or *no*. Since this measure was instituted on the unit, *omissions* and *delays* have decreased. Some further "tweaking" is bound to occur: the experiment is just a week old at this writing. But as soon as the experiment is deemed satisfactory by the nursing unit and the pharmacy, it will be rolled out on the other units.

Community partnerships

Applying PPC principles in addiction therapy

The Institute for Research Education and Training in Addiction (IRETA) has recently begun to apply the principles of PRHI's Perfecting Patient Care to improve the performance of addiction treatment providers. Through a federal SAMHSA/CSAT grant to promote the transfer of science to practice, IRETA's Pennsylvania Practice Improvement Collaborative (PIC) is engaged in a process with leading providers, payers, consumers and policy makers to promote PRHI's commitment to perfect care and offer the necessary resources to achieve it.

Surrounding everything is a common vision of what qualitative and efficient care should be, according to evidence-based practice and science.

—Institute for Research, Education and Training in Addictions (IRETA)

Looking at recovery, one patient at a time

IRETA's first step in advancing the quality of patient care was to form the Addiction Leadership Group (ALG) composed of addiction and healthcare treatment providers, payers and policy makers. This group is charged with learning the PRHI principles currently being used in healthcare settings and developing a parallel approach appropriate to the nature of addiction treatment and its problems. All members agreed to a written "commitment of principles" built on each client's individual recovery.

Real-time data helps evaluate progress

The ALG is currently piloting a performance measurement program using real-time reporting in an effort to monitor outcomes in addiction treatment. New patients will be assessed at the first point of contact with the site, every 30 days in treatment and at the time of discharge. Patient data will be faxed to the University of Pittsburgh and immediately stored in a master repository. This information can be analyzed and applied in as few as 48 hours after patient assessment for reporting purposes. The implementation of the PRHI principle of real-time data availability will allow the sites to receive baseline and outcome information in a more timely manner than allowed by typical reporting mechanisms. The sites can then use this information to determine how well patient needs are being addressed while in treatment and consequently identify problems in need of attention.

Contact:
IRETA
Regional Enterprise Tower
412-391-4449

Root-cause problem solving

When the data indicate unmet program needs, we will use a root-cause problem solving approach to address them. Surrounding everything is a common vision of what qualitative and efficient care should be, according to evidenced based practice and science.

The ALG is also using root-cause problem solving to alleviate the compounding effect of administrative burden on the performance of treatment centers. As the amount of regulations and requirements imposed by federal and state agencies as well as third party payers has increased, the quality of care has begun to decrease. Counselors are reporting that too much time is being spent on paperwork, which is detracting from the quality of care that their clients receive. Using root cause analysis, staff will be able to examine each administrative redundancy they encounter and determine whether it is the interpretation, implementation or nature of a regulation that contributes to this unnecessary and growing burden.

Sharing through a Learning Community

IRETA is currently developing a learning community to further promote the PRHI focus on leadership, single point accountability and the sharing of experiences throughout the Addiction Leadership Group and its projects. Key in its work is having the right process in place to support the right care. For this reason IRETA sees "collaboration" between all stakeholders as critical if change is truly to overcome the current condition – a condition many hold in high skepticism. IRETA, working with its state and local partners, has the strong commitment of all to continue the use and implementation of these principles to advance addiction treatment to the theoretical limit of perfect patient care for every person who needs treatment.

Education, consultation

PRHI expands community offerings

The Allegheny County Medical Society recently invited PRHI staff to update their members on the progress of our community's collaborative initiatives. In the course of the discussion, one physician leader asked for an explanation of the training PRHI could provide in systems thinking and problem solving. Another physician described support PRHI had provided to a community hospital as they set up a formal board quality and safety committee. These exchanges prompted requests for PRHI to detail the resources it makes available to institutions, clinicians and administrators who are striving to perfect patient care.

In two years, over 1500 people (local and out-of-area) have taken a PRHI course.

Educational opportunities

PRHI makes courses available to the public, in an effort to share the knowledge we have gained about healthcare quality improvement. We call this approach the Perfecting Patient Care (PPC) System. Courses are designed to give you what you want, from a 3-hour overview to an in-depth week-long university. All of PRHI's courses are accredited for continuing education for medical professionals.

Past attendees—over 1500 of them—have included not only physicians, administrators, nurses and other healthcare workers, but business leaders and educators from Southwestern Pennsylvania and across the country. When a number of employees from a single institution desire instruction, PRHI can "take its show on the road," offering courses at your site.

Classes are reasonably priced*. Contact Patience Celender at 412-535-0292, ext. 100, ***pcelender@prhi.org***.

Special sessions for leaders

PRHI staff and lay leaders are available to consult with the leaders of institutions that are considering "next steps" in accelerating their gains in quality and safety. From key issues such as how to take existing information about errors and make it "actionable" for front line staff to the establishment of key governance mechanisms such as Trustee-level oversight of safety and quality, PRHI has staff experienced with change initiatives in healthcare and industry. An increasing proportion of our consultation work consists of simply connecting clinical and administrative leaders to peers who are working to overcome the same challenges.

Web-based information

Sharing what we learn together as a community is PRHI's central focus. Toward that end, PRHI recently upgraded its website, and most recently added learning modules on hand hygiene—one from our own VAPHS, and one from Saint Raphael Hospital in New Haven, CT. These resources, like everything on our website, are free and downloadable.

PRHI belongs to the community

PRHI has no meaning or standing apart from the efforts of the people who are providing and improving care to the people of Southwestern Pennsylvania. Let us know how we can support for your efforts.

Special Community Offering

Hoshin Planning Session

Co-sponsors, PRHI and Enlightened Leadership

April 27, 8 am to 5 pm Cost: $100

Tired of typical strategic planning? Come learn the "lean" version in this one-time-only session.

Facilitator Bob Stearns of Enlightened Leadership will lead the session, teaching a planning and management system that aligns the organization to achieve breakthroughs for customers.

This session will reinforce the principles introduced during PRHI's education sessions.

Contact Patience Celender, 412-535-0292, ext. 100, *pcelender@prhi.org*.

***Education Sessions and Prices, effective April 1, 2004**

Information Session, $20

Perfecting Patient Care 101, $100

Go & See, (included as part of Information Session or PPC 101)

PPC University, $450

Oh! No! Session, $50

Pittsburgh Regional Healthcare Initiative

650 Smithfield Street, Suite 2150

Pittsburgh, PA 15222

Calendar, April 2004

Tuesday, April 6	PPC 101, Centre City Tower, 5th floor	8a-5p
	Infection Control Advisory Committee, PRHI Offices, Centre City Tower, 21st floor	8—10 a
	Information Session, 5th floor	6-9p
Wednesday, April 7	Go and See, Allegheny General Hospital	8a-noon
Tuesday, April 20	*Oh! No!* Session (location tbd)	8a-noon
Monday, April 12	Chronic Care Working Group, Centre City Tower Conference Center, 5th floor – Montour Room	5-7 pm
Tuesday April 13	Medication Safety Advisory Committee, PRHI Offices	3—5 p
	Obstetrical Working Group, PRHI Offices	5:30—7p

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PRHI Executive Summary is also posted monthly at ***www.prhi.org***
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**CEUs and/or CMEs offered. For further information or to enroll, call Patience Celender, 412-535-0292, ext. 100*