Highmark staff attends PPC University

PRHI regularly offers Perfecting Patient CareSM University, a four-day intensive course in process improvement, adapted from industry for people who work in health care. The course details how to go about making small, rapid improvements to the way work is done every day. The cumulative results of small changes add up to major improvement. It works in manufacturing, and the more it is applied in the healthcare setting, the more evidence there is that it works there, too.

Perfecting Patient CareSM University is held periodically in Pittsburgh, but the educators also take the training on the road to hospitals across the country by special arrangement. So it’s not surprising that employees from hospital units and physicians’ offices, medical specialists and other curious healthcare professionals have taken the course.

It was a little surprising, however, and gratifying, that one segment of the healthcare industry is finding the training extremely valuable—insurers.

In late 2006, Diane Gotkin, RN, a Highmark Network Quality Management Consultant from the Erie area, took the University. Learning how to translate concepts into on-the-ground improvements advanced the way she thought about quality in health care. Convinced that these concepts could be useful to others in Highmark’s Quality Management Department, she persuaded its leaders to enroll 50 department members in the training.

Highmark’s Quality Management Department is responsible statewide for coordinating the insurer’s clinical and service-related improvement initiatives in the following areas:

- Clinical Outcomes
- Accreditation and Compliance
- Credentialing and Network Quality Management
- Performance Measures and Quality of Care
- Service Quality

The first group of about 25 quality employees completed the training in December 2006 and enthusiastically endorsed it for the others. The second wave of training just concluded in April 2007.

In their own words

Here is what the Highmark employees discovered during the training:

“I’ve learned to explore new ways of thinking.”
—Jamie Shelby, Database Consultant, Highmark

“It’s one thing to hear that small improvements lead to bigger improvements, but the exercises really proved the point.”
—Ellen Kuntz, Manager of Service Quality, Highmark

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Internal Medicine Service streamlines hand-offs

It’s no secret that patients are at risk during medical “hand-offs,” those times when they are transferred from unit to unit, or caregiver to caregiver. A missing piece of information, like a change of medication that is not communicated, can put patients at risk for error. The Joint Commission, a national accreditation body, made a “standardized approach to hand-off communications” a National Patient Safety Goal in 2004.

Hand-offs can involve the day-to-day exchange of communication about patients’ conditions during shift change, or more detailed information required when patients transition from one facility to another. The latter is the focus of a Physician Champion project at UPMC Montefiore Hospital, led by Dr. Adele Towers and Dr. Eric Rodriguez.

In early 2006, Towers and Rodriguez became two of eight Physician Champions selected by the Jewish Healthcare Foundation to pursue projects to improve quality in areas of health care that have proven to be error prone, inefficient or marked by variations in practice and outcomes. The two decided to look at patients in six units on the Internal Medicine Service who were completing acute treatment in a hospital and being transferred to nursing homes for extended care. These transfers typically involve frail patients with multiple medical conditions, many of whom also have functional and cognitive impairment. Their complex medical condition can overwhelm the tenuous process of transferring information along with the patient.

The team

Dr. Towers is the first to admit that selecting committed team members has been the key to the project. Joining Towers and Rodriguez in untangling the lines of communication are:

- Geriatric nurses, Cathy Hammel, RN, and Diane Krueger, RN
- Social worker, Mary Ellen Cowan, MSW
- Research Coordinator, Heena Sheth, MD

“Nursing homes are stressed and understaffed,” said Dr. Towers. “Getting to know their needs—understanding them as our ‘customers’—really opened up a host of ideas.”

Part of the Physician Champion award included attendance at the Perfecting Patient Care® University, offered through the Pittsburgh Regional Health Initiative (PRHI). The four-day course enabled the team to begin to look at communication problems through new eyes.

The team took a field trip to Charles Morris Nursing and Rehabilitation Center, the nursing home run by the Jewish Association on Aging, to observe the “receiving end” of patient transfers.

“It was very revealing for us to see how it worked on their end,” said Krueger. “It made it easier for us to start talking with everyone at this end, to see first-hand how the process really worked, and how we could make it work better.”

Towers added that, at first, the idea of fixing all problems at once was overwhelming. The class taught them how to untangle problems and start in one small area.

It came down to a form.

Physicians have forms for standardized orders; nurses don’t. And physicians didn’t have a form that was specific about transfer to a skilled nursing facility.

So Towers and Rodriguez created a form for physicians and others on the staff to coordinate their efforts (Figure 1). And the nurses created a form to accompany each patient on transfer that would be exhaustively complete, but easy to fill out (Figure 2). These forms would include the most up-to-date information on each patient’s treatment plan and condition.

Complex communications

Discharging patients from hospital to nursing home is a complicated affair.

Typically, a primary nurse or physician decides whether a patient is becoming medically stable and will likely be released to a nursing home within the next several days. That decision triggers a visit from a social worker, who contacts family members to discuss nursing home preferences and other needs. (The six pilot units can discharge patients to any of the region’s 100-plus nursing homes.) But without a consistent way to communicate information about the patient’s condition, social workers had to gather it themselves by interviewing the patient and nurse and looking in the computer records. Subtle bits of information were often lost in this process.

Social workers usually refer the patient to several places at once, since the first choice facility may not have space. There’s a wait for the nursing home to reply to the social worker. When the nursing home replies, the social worker notifies the nurse, and transportation services are arranged. The nurse calls the facility and talks to a nursing home nurse before the patient leaves, then faxes discharge instructions from the physician.

“Various people have to get involved, and many different documents need to go with each patient. All those steps need to happen before the patient is ready to go,” said Krueger. “Our biggest goal is to get
the right information to the right place, to make sure the nursing home has it before the patient arrives, so there’s no delay in treatment when they get there.”

**Building a better form**

The team decided to concentrate on building a comprehensive form that would communicate all (and only) the necessary pieces of information about each patient. They interviewed 67 staff members all along the continuum of care—nurses, doctors, social workers, transportation workers, and nursing home personnel. **In looking at the transfer process, they discovered that their satisfaction scores weren’t bad…but some critical areas of care were inadequately communicated.** They believed they could do better communicating a patient’s risk for falls, for example, or their code status, or whether blood sugar monitoring was required.

“Unless you’re prompted to remember and communicate, some of these things get lost,” said Krueger.

Over several months the team made additions, deletions and clarifications to the form and had dozens of staff members try it out. Their suggestions were incorporated to make the form more and more complete.

Nursing homes were gratified when, during the testing, they received phone calls following transfers to see whether they had all of the information they needed, and what could be done better.

“In the pilot units, the nurses were involved and have seen variations in the form as it was being developed. So they know it’s coming,” said Krueger.

After months of trials, a well informed staff began using the form in mid-April. The team will continue following up each transfer with a phone call to see whether the information was complete and what could be better.

“The form will always be a work in progress,” said Krueger. “But we have a template that we never had before.”

The project was selected for inclusion in the UPMC Quality Improvement Fair held earlier this Summer.
Coronary artery bypass graft (CABG) surgery is one of modern medicine’s most intricate surgeries. About 350,000 of them are performed each year in the United States. CABG is an effective treatment for people with blocked coronary arteries and angina (chest pain). With this procedure, arteries and/or veins are harvested from the body (e.g. from the upper chest or legs) and grafted to the heart to create new routes around narrowed and blocked arteries. This allows enough blood flow to deliver oxygen and nutrients to the heart muscles.

Traditionally, during this delicate and demanding procedure, the beating heart is temporarily stilled, and the function of pumping the blood is taken over by the heart-lung bypass machine as the surgeon attaches the grafts to bypass blocked arteries.

Within the past several years, surgeons across the country have begun using a modified form of CABG surgery called off-pump CABG. With this approach, the heart-lung machine is not used. Instead, the surgeon, using specialized technology, holds and stabilizes portions of the heart during surgery, attaching the bypass grafts while the rest of the heart keeps pumping.

Proponents of off-pump CABG cite shorter hospital stays, fewer blood transfusions, better neurocognition following surgery, and several other advantages. In contrast, other research suggests that off-pump CABG results in higher risk of subsequent graft occlusions due to the technical difficulties of microsurgery on the beating heart, and possibly worse cardiovascular outcomes. Recent national studies indicate that both techniques achieve about the same results. Thus, at present, there is no clear consensus about the same results. Thus, at present, there is no clear consensus as to when to use conventional on-pump versus off-pump CABG surgery, or which patients are better candidates for one procedure or the other.

WHAT ABOUT PITTSBURGH?

The Cardiac Working Group (CWG) provides a way for the cardiac teams of Southwestern Pennsylvania to ask, “What percentage of patients in our region receive off-pump CABG? Do the patients in our region have better outcomes and fewer complications with one type of CABG as opposed to another?”

The Cardiac Working Group (CWG) and PRHI Cardiac Registry provide a way for the cardiac teams of Southwestern Pennsylvania to begin asking, “Do the patients in our region have better outcomes and fewer complications with one type of bypass surgery as opposed to another?”

Definitive answers may be in the future, but the Registry provides a way to find out ultimately.
Surgeons have been provided with information about off-pump CABG which has shown that its performance remains highly variable across the ten CWG hospitals (See Figure 1) The CWG hospitals (labeled A through J) range in their performance of off-pump CABG from 1.4% of treated patients to a high of 21.6%, with a median of 11.6%. Figure 2 shows that the use of off-pump CABG surgery has varied during the years 2002-2006, but not in a consistent manner, ranging from a low of 11.2% (2005) to a high of 18.1% (2002).

Perhaps the most significant finding, however, is that patients undergoing on-pump or off-pump procedures have about the same percentage of major in-hospital complications (death: 2.0% vs. 2.1%, stroke: 1.7% vs. 1.5%, deep sternal wound infection: 0.5% vs. 0.5%, surgical treatment for thoracic bleeding: 2.3% vs. 3.0%).

**A Matter of Preference, Pending More Data**

Results from the CWG Registry indicate there is surgeon and hospital preference for the use of off-pump CABG surgery, but no clear evidence of a more favorable or adverse in-hospital outcome compared to the use of traditional CABG surgery with cardiopulmonary bypass.

In the meantime, the decision is likely to be driven largely by medical conditions of the patient, personal preference and experience of the treating surgeon, and consultation with the patient. Regardless of the current lack of definitive conclusions about which procedure is better for which patients, both on and off-pump CABG procedures typically result in excellent patient outcomes in Southwestern Pennsylvania.

The CWG Registry will continue to track changes and monitor outcomes for both on-pump and off-pump CABG surgeries. New knowledge gathered over time through the Registry and other regional registries will add to the national research base about the off-pump/on-pump question—such as, which patients will be better candidates for each kind of surgery.
Governor Rendell speaks in support

PRHI unveils the “Pittsburgh Prescription”

The Pittsburgh Regional Health Initiative has offered a roadmap for Southwestern Pennsylvania employers seeking ways to lower the cost of health care while improving quality and safety. In other regions, for example, employers are finding novel ways to support and encourage better ways of caring for employees with chronic illnesses.

The Pittsburgh Prescription

1. **Work Process Improvement**: employers could support efforts to introduce basic process improvement principles to healthcare settings. This support could include lending their experts to healthcare institutions, providing time for in-house experts to work with PRHI’s Perfecting Patient Care℠ University, or hosting lunchtime learning sessions.

2. **Workplace Support for Chronic Disease Prevention and Management**: whether through workplace wellness programs or participation in initiatives such as “Living My Life” or the Pittsburgh Alliance for Chronic Care Transformation, employers can help improve chronic care, which currently accounts for 83 percent of all healthcare spending.

3. **Health Information Technology**: whether using their clout with vendors or bringing their expertise to bear, employers can help promote the use and interoperability of health information systems.

4. **Payment Reform**: employers can encourage alignment of incentives in health care by collaborating with providers and payers in regional demonstrations designed to reward higher quality and greater efficiency.

PRHI unveiled the four-part “Pittsburgh Prescription” in April in response to federal and state healthcare agendas that encourage regional coalitions to serve as catalysts for reform.

In announcing the plan, PRHI President and Chief Executive Officer Karen Wolk Feinstein, PhD, told employers attending an April 17th meeting of the Regional Investors Council of the Allegheny Conference on Community Development that healthcare reform “must involve your active participation.”

Dr. Feinstein said employer involvement is essential to moving health care in the same direction as other industries, to compete on the basis of quality and cost, because employers are effectively “the customers.”

Moreover, initiatives involving business stakeholders around the country suggest that employers can bring more than purchasing power to spur quality and cost improvements. That’s just one of the ways PRHI suggested that businesses in Southwestern Pennsylvania can help bring about healthcare reform and lower costs at the local level.

Among others, they can use their expertise and their clout with vendors to help hasten the deployment of interoperable information systems that could make health care safer, more efficient and more able to track the quality of outcomes. Businesses with in-house capability in process engineering also could lend experts to help advance the use of continuous quality improvement methods in healthcare settings. In addition, companies also could participate in demonstrations to realign healthcare payments to reward the best practices of care.

“It’s no secret that employers are struggling with healthcare costs,” said David Malone, president and ceo of Gateway Financial and Chairman of the Greater Pittsburgh Chamber of Commerce.

“But it’s not been clear to many that they can actively involve themselves in bringing costs down and that they can do so by supporting the same kind of quality improvement methods, information technologies and payment incentives that drive their own businesses,” added Mr. Malone, who also spoke at the Regional Investors meeting.

Both Governor Rendell and Andrew Croshaw, senior policy advisor to U.S. Health and Human Services Secretary Michael Leavitt, addressed the Regional Investors meeting about the importance of regional coalitions in advancing state and federal healthcare agendas.

“Reform plans seldom are one-size-fits-all and my healthcare reform plan, Prescription for Pennsylvania takes that into account,” Governor Rendell said. “That’s why groups like the Pittsburgh Regional Health Initiative are critical to taking the basic reforms and building on them to make sure they make sense and work for the unique regions throughout our Commonwealth.”

Also speaking at the Regional Investors meeting were representatives of the healthcare provider and insurance sectors, to give their perspectives on ways employers can help.

Diane Holder, president of UPMC Health Plan, noted that employers can support changes in the management of chronic illnesses among their employees by providing employees with the right tools and incentives to assess their health risks and mitigate them.
Noting the wide variations in care for the same conditions across the country.

Donald Fischer, MD, senior vice president and chief medical officer of Highmark Blue Cross Blue Shield, said his company stood ready to help employers participate in demonstrations to ensure that healthcare payments reward best practices.

Tami Merryman, vice president of UPMC Health System’s Center for Quality and Innovation, told attendees that UPMC has used quality improvement methods to dramatically increase efficiency at Hillman Cancer Center and that employers can provide support for process engineering principles such as TPS and Lean.

From page one

Highmark staff attend PPC University

Said Business Analyst, Jennifer Kreigline, “Our Network Quality Management Consultants are currently consulting physician offices with the following services: screening practice workflow, site recommendations and process redesign ideas. The Perfecting Patient Care℠ University was an excellent learning experience for the consultants. They will be able to apply many of the principles in the field to help to improve quality in our physician offices.”

“The Perfecting Patient Care℠ University was a rewarding experience for the Quality Management Department at Highmark,” said Database Consultant Jamie Shelby. “As a quality driven department, we understand the importance of evaluating processes as part of continuous improvement. The seminar educated the Quality Management Department on finding creative and innovative ways to evaluate and improve current processes and how to ‘think outside the box.’ I’ve learned to explore new ways of thinking, take on new challenges, consolidate and streamline processes, recognize the importance of teamwork, and organize and plan.”

Adds Ellen Kuntz, manager of Service Quality, “I found the hands-on activities to be very enlightening. It’s one thing to hear that small improvements lead to bigger improvements, but the exercises really proved the point. The 5S and the A3 tools are useful and easy to learn. The time spent on the last day to write our own action plans to take back to our real jobs was beneficial as well.”

“That was by far the best educational experience I have ever had! I learned so much,” said Administrative Assistant Rae Patton.

Next steps

The news has traveled. Because of what they have heard from Highmark employees, West Virginia-based Mountain State Blue Cross Blue Shield is scheduling Perfecting Patient Care℠ University for its employees starting next year.

PPC University schedule, 2007

- September 17-20 Courtyard Monroeville and UPMC Shadyside Hospital
- November 13-16 Courtyard Monroeville and Charles Morris Nursing and Rehabilitation Center

Special classes for 12 or more may still be scheduled. Find further information at: http://prhi.org/ppcu.cfm
### 2007 Calendar

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