

focus on Patient Safety

A NEWSLETTER FROM THE NATIONAL PATIENT SAFETY FOUNDATION®

Using Technology to Help Improve Patient Safety

BY MEG MCGOLDRICK, EXECUTIVE VICE PRESIDENT, ABINGTON MEMORIAL HOSPITAL, ABINGTON, PA

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When the Institute of Medicine (IOM) released its 1999 report, *To Err is Human: Building a Safer Health System*, it was a wake-up call to the leadership at Abington Memorial Hospital (AMH) in suburban Philadelphia. Although Abington had always focused on patient safety, the report galvanized the hospital to formalize its efforts.

AMH's commitment to patient safety has become a way of life. It's not a program, it's not an initiative, it is a way of conducting patient care at Abington. Patient safety is on the agenda of nearly all meetings—from the board of trustees to individual nursing units.

As a number-one priority, patient safety goals drive the allocation of resources. If a hospital is truly committed to patient safety, good patient safety ideas should get funding. For example, an organization can demonstrate its commitment to patient safety with investments in technology. As humans, health professionals will always make mistakes, but if there are enough redundancies in the system—by way of good technology—enough barriers will be present to prevent harm.

After reading in the IOM report that approximately 7,000 patient deaths per year are attributed to the administration of incorrect medicine or the wrong dosage,¹ the physician and administrative leadership at Abington agreed to focus initially on safe medication practices.

The IOM recommended computerized physician order entry (CPOE) as a fundamental way to reduce errors. Because the system requires physicians to personally input nearly all of their orders for patient medications, tests, nutrition, therapies, consultations, and discharge plans into the computer themselves, CPOE virtually eliminates mistakes that occur when doctors' handwriting is misread.

Implementing a program

CPOE requires dedicated administrative support to be successful. At AMH, the Patient Safety Oversight

Committee and the Physician Advisory Group were developed. The Patient Safety Oversight Committee includes the executive vice president, vice president of nursing, vice president for professional services, and a trustee, as well as representatives from the medical staff, health information systems, pharmacy, medical records, and risk management.

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The Physician Advisory Group reviewed and prioritized user requests for system changes, monitored physician training and utilization, and acted as a liaison to areas with CPOE concerns. This group was made up of chairs of the Departments of Medicine and Emergency Medicine, the chiefs of internal medicine and pulmonary medicine, as well as representatives from urology, surgery, nursing, and health information systems.

With a foundation of support from these two committees, the health information services (HIS) staff worked diligently to implement universal CPOE. Concurrently, administration and medical staff leadership worked to integrate universal CPOE into an overall culture of safety throughout the hospital. The hospital offered patient safety training programs and distributed a quarterly patient safety newsletter to the staff. Patient safety suggestion boxes are located

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Abington Memorial Hospital has been recognized for its commitment to patient safety improvements. In 2003, AMH was awarded the John M. Eisenberg Patient Safety Award for its webINR program, the American Hospital Association's Quest for Quality Prize and, in 2002, the Delaware Valley Medication Safety Award for Leadership in Medication Safety.

throughout the hospital, a 24-hour patient safety hotline is available for reporting patient safety issues, and patient safety liaisons are present on each nursing unit.

Involving nurses to champion the cause is important in implementing similar programs, as nurses have much to gain if physicians comply with order entry. Nurses can often influence doctors to incorporate these and other improvements because of their close working relationship.

Front-line involvement

At Abington today, about 85% of the nearly 3 million orders a year, including 99% of prescriptions, are entered into computers by the physicians themselves. Eighty-five percent is considered very good by industry standards. In some circumstances, physicians cannot access CPOE because they are involved in a procedure, in the middle of a trauma, or are off-site.

Training all of the physicians was a challenge. Physicians who hand-wrote more than 200 orders per month were the first group targeted. The second group included those who wrote 100 orders per month, with the remaining physicians being the third target group. The first invitation to training came in a letter from the chief patient safety officer. If there was no response, HIS trainers followed up with phone calls; the last resort was a personal phone call from the chief patient safety officer. Division chiefs were also instrumental in gaining compliance for training in CPOE. Peer-to-peer communication where users related the time savings and efficiency of CPOE was also very helpful. Physicians adopted CPOE universally by January 2001.

As AMH continues building safeguards into its computerized order entry system, the Pharmacy Department has also developed myriad computerized screening tools to make sure patients get the most appropriate medications. These tools are aimed at detecting and helping avoid potential allergic reactions, drug interactions, and drug duplications. Using computers to pinpoint the exact dose a patient should receive reduces the chance of patients having adverse events and increases their chances of getting out of the hospital earlier on the most appropriate dose for their needs.

Using systems for safety

AMH is currently upgrading to a Web-based clinical information system. The new system will support clinical decision-making with real-time reminders and alerts at the clinical work station or via pager or e-mail. Clinical pathways founded on evidence-based medicine help to

standardize care, avert duplication of services, increase productivity, and enhance patient outcomes.

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The system also considers individual patient characteristics. A request for an MRI test, for example, would be flagged for a patient who has a pacemaker. The system alerts physicians to their patients' abnormal lab results and provides the trend over time for a particular patient's lab tests. When good technology is not available, the hospital rounds up a team and develops its own. One subject of concern to clinicians was the use of the anticoagulant drug, Coumadin, a difficult drug to manage due to its narrow safety margin. Anticoagulants are second only to chemotherapy drugs in those having the highest risk of serious treatment-related complications. The risk with too much Coumadin is major bleeding; the problem with too little is failure to protect the patient from blood clots.

Because of the potential safety issues surrounding this commonly used drug, the medical, pharmacy, nursing, and performance assessment departments at AMH, with support from its physician network leadership, developed and implemented a Web-based program for outpatients that helps primary care physicians keep closer track of patients taking Coumadin. They called it webINR (international normalized ratio).

WebINR is a protocol-driven, stand-alone system designed to keep patients "between the lines" of their target INR. The system was built on the evidence-based guidance on indications, contraindications, and management of oral anticoagulation available in current medical literature.

How was webINR implemented? In each practice, a nurse or clinical assistant became the “anticoagulation coordinator” and was trained in this easy-to-use program. A roll-out plan was devised and implemented on an office-by-office basis. The cost to the Physician Network is \$3 per year, per active patient followed by the webINR program.

Soon the hospital will be ready to go live with a patient portal to webINR. Patients will be able to access their own dosing and blood work result flow sheet, get reminders about when to get their INR blood drawn, and have at their fingertips a variety of Coumadin educational material.

Leadership lessons learned

- Medical staff leadership is essential for CPOE implementation. It’s important to have one, two, or three physician champions committed to CPOE as one of the most effective patient safety initiatives available. These leaders must firmly believe CPOE is the way to improve physician efficiency, given the fast pace and overwhelming amount of information in medicine today.
- CPOE is a multi-year endeavor. The administration and medical staff leadership must be prepared to provide

steadfast support for CPOE, absorb the resistance that will surface, and help to make it work.

- There are no free lunches in health care. CPOE and technology advances cost money, so the commitment of resources has to be there.

Next steps

In 2004, Abington will explore the feasibility of using universal bar codes to identify patients and their medications. AMH is also investing \$10 to \$15 million in software upgrades to give physicians speedy access to clinical information.

As the funding commitment can seem insurmountable for smaller hospitals, a useful strategy is to start by setting aside resources to fund CPOE over several years. Another approach is to schedule implementation in phases, starting with medication orders, if the entire system cannot be brought up at once. **NPSF**

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1 Kohn LT, Corrigan JM, Donaldson MS, eds. *To Err Is Human: Building a Safer Health Care System*. Washington, DC: National Academy Press. 2000.

Plan Now to Attend the NPSF Patient Safety Congress, ‘Let’s Get On With It!’ May 3-7, 2004

The sixth NPSF Patient Safety Congress, “Let’s Get On With It! Improving the Safety of Patients,” will be held on May 3-7, 2004 at the Hynes Convention Center in Boston.

The Patient Safety Congress will present successful strategies that promote patient safety across the continuum of the healthcare system. Plenary sessions and workshops will highlight effectively implemented policies and programs that result in cultural change and sustained improvement of clinician behavioral patterns.

The Congress title, “Let’s Get On With It!” emphasizes NPSF’s commitment to:

- Move patient safety research into practice;
- Incorporate research findings across multiple healthcare settings to improve safety;

- Identify existing tools, best practices, and resources needed by individuals and institutions engaged in cultural change;
- Recognize and overcome barriers to change; and
- Use innovations and technology to overcome these barriers.

The Institute of Healthcare Improvement, the American Society for Healthcare Risk Management, and Health Research Educational Trust/Institute for Safe Medication Practices, in collaboration with NPSF, will conduct mini-courses on patient safety in conjunction with this event.

For more information, including registration materials, visit www.npsf.org. For exhibitor and sponsorship opportunities, please contact Shaughna Giracca at (703) 506-3280 or sgiracca@npsf.org. **NPSF**

Communicating a Commitment to Patient Safety: The Importance of Branding

BY MELISSA UPDIKE AND GLENN WATSON, RPH, JEWISH HOSPITAL HEALTHCARE SERVICES, LOUISVILLE, KY

What does a patient safety culture look like? Does it have a face or a name? Changing institutional patient safety culture has become a high priority for many hospitals and health systems. Healthcare institutions have found it very important to take inventory of their current safety culture and decide where to begin establishing a patient safety agenda. In many cases, setting such an agenda involves changing organizational culture.

Organizational culture change begins by understanding internal and external forces as well as safety standards and requirements. This task can quickly become overwhelming. Some hospitals and health systems have found that one of the first steps in mapping a patient safety agenda and defining a culture is to identify it with a brand. Developing a logo, a patient safety program name, or a foundation for patient safety can help accelerate the pace of change in moving an organization's patient safety culture forward.

Networking to get started

To find a starting point, many healthcare institutions have turned to the leading experts in the field of patient safety. Jewish Hospital HealthCare Services (JHHS) in Louisville, Ky, turned to the Patient Safety Leadership Fellowship Program. JHHS has learned a tremendous amount from the Fellowship Program and its participating hospitals and health systems—including the importance of giving an organization's patient safety agenda and culture a name and a face.

A year ago, a multidisciplinary team from JHHS participated in the inaugural class of the Patient Safety Leadership Fellowship Program. The JHHS team included the chief operating officer and vice president of patient care services, as well as the directors of pharmacy, risk management, and engineering/safety. The program, sponsored by the National Patient Safety Foundation, Health Forum, American Hospital Association, American Organization of Nurse Executives, American Society for Healthcare Risk Management, and Health Research and Education Trust, develops leaders and change agents in patient safety. The curriculum builds skill sets, such as techniques for innovation and adaptation needed to advance a culture of patient safety in a multi-disciplinary environment.

The heart of the fellowship program is the development of an Action Learning Project. Each fellow or fellowship team's project must focus on advancing patient safety and health

outcomes. The JHHS team's Action Learning Project has four main objectives:

'Developing a logo, a patient safety program name, or a foundation for patient safety can help accelerate the pace of change in moving an organization's patient safety culture forward.'

1. To enhance organizational awareness of the national agenda to improve patient safety;
2. To drive the pace of change to a culture of increased emphasis on patient safety;
3. To develop a communication structure and educational programs that support the mission of an increased emphasis on patient safety; and
4. To assure that patient safety initiatives and their impact are communicated throughout the organization.

The JHHS team's Action Learning Project has multifaceted initiatives aimed at a common goal: culture change to provide optimal patient care and thus improve patient safety. The team has also emphasized a communication structure to ensure patient safety initiatives and results are distributed and discussed at all levels of the organization, from the board level to the front-line employee. Educational agendas are being developed to encompass training in systems analysis, failure mode and effects analysis (FMEA), "Just Culture" reporting, near-miss event analysis, and discussion of the national agenda to reduce medical errors.

Learning from the field

Many teams' Action Learning Projects are using branding as an effective tool to identify the institution's patient safety agenda and strategy. By establishing a brand name, the organization's patient safety agenda can be seen as well

as heard. Hospitals and health systems can benefit from placing a name on items that facilitate their patient safety initiatives that ultimately change culture.

Some of the most successful and sustained patient safety initiatives presented at the fellowship meetings were those that created a logo and/or brand name for a patient safety program.

- The Nebraska Medical Center developed a program branded “P.S. We Care.” The program’s logo was incorporated into buttons, lapel pins, and patient safety brochures to constantly remind patients and employees that Nebraska Health System is committed to providing safe health care. To view a sample of their brand and materials, visit www.nebraskamed.com/patient_information/patient_safety.cfm.
- Children’s Hospitals and Clinics in Minneapolis created a logo resembling a wedge of Swiss cheese. This organization used the concept of accident causation developed by James Reason, known as the “Swiss Cheese Model.”¹ It is not uncommon to see a wedge of cheese illustrated on the organization’s incident reports or other safety communication reports and displayed in work areas.

In reviewing the data and articles being written on patient safety, it is not difficult to discover phrases or comments that can easily help facilities develop a theme to help establish a culture change and clearly state their patient safety priorities. Some frequently cited expressions include:

- Stop the line
- First, do no harm
- Nothing about me, without me
- If it looks wrong, it is wrong

Some brand names are based on events in which a medical error has had a significant impact on a facility. For instance, the Josie King Pediatric Patient Safety Program was developed at the Johns Hopkins Children’s Center in memory of a young patient who died at the institution as a result of a medical error. See www.josieking.org for more information.

JHHS is now in the process of developing a brand for its patient safety initiative. One idea being considered is to tie its safety brand in with the superbrand at the hospital, “Excellence Above All.”

“Excellence Above All” represents the hospital’s commitment to provide safe health care to its patients.

JHHS has shown its commitment to safety by developing a board-level Patient Safety Committee composed of physicians and lay members to oversee its patient safety initiatives. The hospital has also taken a lead role in the community by approaching nursing schools about incorporating a focus on patient safety into their curricula. A patient safety brochure has also been developed to communicate to every patient admitted to JHHS the organization’s commitment to partnering with patients to provide safe health care.

How to optimize branding in patient safety initiatives

To maximize the impact of branding in advancing a patient safety program’s agenda, the brand name should be easily remembered and identifiable with the facility’s patient safety initiatives. Name recognition is important and will be useful in maintaining constant visibility of patient safety efforts with a target audience. Establishing a logo and placing it on every communication and educational piece will enable the target audience to associate it with patient safety.

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There is a lot to be learned by hospitals and health systems in how to promote their patient safety agendas. Branding is a concept that has emerged from the leaders in the field with great potential to help facilities move this national challenge forward. **NPSF**

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- 1 Reason J. *Human Error*. Cambridge, UK: Cambridge University Press, 1990.

Breaking the Wall of Silence: Putting a Face on Medical Error

BY ROSEMARY GIBSON, MSc

Many healthcare organizations are working to improve patient safety. Performance measures are being developed and reporting requirements are being strengthened, but it will take much more to ensure that patient safety becomes the norm.

Improving patient safety will require a culture of safety in healthcare institutions. Leaders in patient safety are beginning to drive such a culture by trying to change their organizations' values, norms, and expectations about error. The resulting culture of safety will reflect the fact that medical errors can and must be prevented and must be disclosed. Patient safety leaders know better than anyone how hard this work is.

If leaders in patient safety are to be successful, society's values, norms, and expectations about error need to change as well. The new societal values would say that medical errors can and must be prevented and must be disclosed. Right now, most people believe that medical errors occurring in large numbers are inevitable, and the public feels powerless to do anything about it.

Involving the public in improving patient safety

How do we change society's norms and expectations about error? We have to start by engaging concerned members of the public to be part of the solution. In 1998, the Institute of Medicine's National Roundtable on Health Care Quality urged that, "Public support is needed to keep quality at the top of the agenda."¹ What will it take to create that public backing?

Right now, it is very hard to garner public support to save people's lives from medical errors because the public does not know about who dies from them. Using the estimates from the IOM's 1999 landmark report, *To Err is Human*, 44,000 - 98,000 people died in 2003 from medical error.² Yet nobody knows who these people are. The media reports cases periodically and clinicians and administrators know patients who die from errors in their facilities. But overall, those who die from errors have no names, no faces, no city or state.

Not too long ago, it was the same way with breast cancer and AIDS—until the wall of silence surrounding these diseases was torn down. Where walls still exist—for breast cancer in Eastern Europe, for example, or AIDS in parts of

Africa—the inaction is striking. And the death toll is stunning. When errors come out from behind the wall of silence, we'll see public support for patient safety begin to emerge.

Look at other causes of death in America: diseases such as heart disease and Alzheimer's; behaviors such as smoking and drunk driving; and human error on highways and in aviation. The public has firsthand knowledge of friends and family who die from these causes. On the evening television news, images of airplane crashes and drunk driving accidents evoke compassion and a sense of urgency to prevent such deaths. Meanwhile, public agencies track deaths from these major causes of death in America.

'Public support for medical error prevention will come only when people understand who is affected and the impact such tragedies have on real individuals, especially in their own circle of family and friends.'

Understanding the impact of medical error

Public support for medical error prevention will come only when people understand who is affected and the impact such tragedies have on real individuals, especially in their own circle of family and friends. Why do good lobbyists in Washington for cancer research, for example, know every member of Congress who has been a personal witness to cancer in his or her own family? It's because those congressional leaders are more likely to be avid supporters of research, prevention, and treatment.

Similarly, we need to involve more people who have a stake in assuring patient safety and medical error reduction. As part of the research conducted for the book, *Wall of Silence: The Untold Story of the Medical Mistakes That Kill and Injure Millions of Americans*, I interviewed many

patients and families affected by medical errors, as well as healthcare professionals. There is a whole world of people affected by medical errors. With the advent of the Internet, they have found each other, are supporting each other through tragedy, and are trying their best to have a voice so no one else will have to go through what they have experienced. Their stories put a human face on error, and their courage and passion to help others in the midst of their own personal tragedy is remarkable.

Harnessing the power of personal stories

Everyone asks, "What is the most compelling story you heard?" I respond, "Each one is as compelling as another." But I'll never forget the mother whose healthy 15-year-old son died from a preventable error. She said, "The idea that you will survive while your child does not is the most awful concept there is. You pray for death, or at least madness. It doesn't come, of course. There are only two things that bring any surcease. One is simply the mind's inability to take in this sort of perversion of the natural order. You carry on because you don't believe it. The second is the support of other people. People—sometimes people you have never met—are just astonishing in their willingness to be there."³

Once we put a human face on medical errors, we begin to break down the wall that has surrounded them. Medical errors and their aftermath become part of our public discourse. This isn't a bad thing at all. In fact, it's healthy. It is painful for dedicated healthcare professionals to hear about the underbelly of health care and to have it out in the open. But is there any problem in America that gets fixed without a vigorous public dialogue?

What can the public do?

Patient safety leaders' best ally is an informed and active public working to promote patient safety. From the inside, concerned members of the public, especially those who have experienced error firsthand, can help healthcare organizations develop policies and practices on error prevention and disclosure.

On the outside, members of the public can be change agents to educate their fellow citizens and change society's norms about medical errors. They can also engage the healthcare organizations that are laggards in patient safety. The new social norm would say, "Yes, to err is

human, to forgive is divine—but forgiveness isn't so divine if the same mistakes are made over and over again."

'Once we put a human face on medical errors, we begin to break down the wall that has surrounded them. Medical errors and their aftermath become part of our public discourse.'

Remember how smoking was allowed in planes, trains, and other public places? It was just how things were—until enough people woke up to say, "It doesn't have to be this way." Society's norms about smoking have changed dramatically with the help of coalitions of public health leaders and grassroots organizations. So, too, do society's norms need to change about medical errors. This will take time and the collaboration of healthcare leaders and concerned citizens.

The magnitude of the change required won't occur overnight, but at least we've started. And I'll bet the human face of error will evoke the needed compassion and urgency for reform. It will be astonishing to see the willingness of people to be there and join us. **NPSF**

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Rosemary Gibson, MSc, is the lead author of Wall of Silence: The Untold Story of the Medical Mistakes That Kill and Injure Millions of Americans. She can be reached at wallofsilence2003@yahoo.com.

Note our new address!

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NPSF Moves Offices to Washington, DC

On November 1, 2003, NPSF completed a successful relocation of its offices to the Washington, DC area.

A relationship with Association Management Bureau of McLean, Va, has enhanced the Foundation's ability to manage the current growth of its programs while better serving the needs of its many alliance partners.

It is an exciting time for NPSF as it looks forward to a busy and productive 2004, including preparation for the annual Congress to be held in Boston on May 3-7. (See page 3 for more information.)

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NPSF values its relationships with its many colleagues and remains committed to its mission of improving patient safety as it continues to grow and enhance its ability to make positive change.

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