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Saying 'I'm sorry' is starting to pay off with reduced lawsuits and legal costs

Some providers seeing dramatic cutbacks in settlement amounts

Risk managers have spent the past several years promoting the idea of full disclosure and saying "I'm sorry" after an adverse event, but until now you've had to assure skeptics that apologies would reduce the number of lawsuits, not increase them.

Now the results are in: Organizations that urge staff and physicians to fully inform patients and apologize after a bad outcome are realizing significant savings.

One hospital's average lawsuit settlement dropped to only $16,000, compared to a national average of $98,000. Another hospital system cut its legal budget from $3 million to $1 million a year because the number of lawsuits fell so sharply. And a major insurer reports that saying "I'm sorry" almost always decreases the risk of a lawsuit.

Claims drop after full-disclosure policy

A full-disclosure policy, including apologies when appropriate, led to a 50% drop in claims over the past three years at the Ann Arbor-based University of Michigan Health System, says **Rick Boothman**, JD, chief risk officer for the organization.

Boothman notes that the system instituted several changes in the way it responds to adverse events, making it difficult to pin down any one strategy that caused the drastic reduction in claims. But he explains that the health system's full-disclosure approach doesn't make the organization a pushover for trial attorneys. Rather, the health system is trying to be honest and cut through much of the back-and-forth wrangling that usually accompanies a malpractice claim, regardless of the claim's merit.

One of the main strategies involves communicating more clearly with trial attorneys. Boothman spent much of the summer of 2001 meeting with local plaintiffs' attorneys to spell out the health system's new approach to lawsuits.

Boothman took each lawyer to lunch and laid out this basic message: If you bring a legitimate claim, we'll work honestly and candidly with you to reach a reasonable settlement. We won't automatically fight you. But if it is not legitimate, we will not write a settlement check just to make the case go away.

"Don't bring junk. If you have medically unsupported claims, we will never settle out of expediency," Booth recalls telling them. "If our care was reasonable, we have to defend it because we ask our staff to do a lot of difficult things. It's not fair to them to cut a check every time someone makes a claim that challenges their care."

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The University of Michigan approach now calls for frank discussion of adverse events or claims as soon as possible, and often with the plaintiff's attorney, Boothman says. When the case is valid, University of Michigan officials do not hesitate to say so and to apologize directly to the patient.

"But when it's not, we sit down with patients and their lawyers very early and explain to them why we don't think they have a case," Boothman says. "They actually have been as appreciative of that candor as much as when we say we're sorry and move quickly to compensate them without need of a lawsuit."

Boothman says he gave the health system's outside attorneys a raise and also made sure they understood the new mandate. "When we're right, we fight like crazy to defend ourselves," he says.

Fears of hearing your comments repeated in court should not deter an open conversation, Boothman says. If you are truly committed to an honest exchange, you should be willing to say in court the same thing you said privately to the patient, he says.

Defusing parent's anger with open admission

Boothman recalls a recent case in which a seriously injured patient with a decubitus ulcer was transferred to a University of Michigan facility from another hospital. The ulcer got much worse, and everyone involved in his care agreed that it should not have.

"We sat down with the mother of this patient, and she brought a lawyer, thinking it would be an adversarial meeting," he says. "The first thing I said was, 'You must have so much on your mind with a son who is now quadriplegic, and I'm sorry to have created this problem for you. You didn't need this, and we should have done better.'"

That comment defused all of the mother's anger. Boothman continued by telling her that the health system was ready to resolve the claim without litigation or expenses, and that the hospital was eager to do all it could to help heal the patient. The claim was settled in about four months, with no litigation.

"That case might have cost us $75,000 to $100,000 to litigate, only to arrive at the same conclusion," he says. "So we eliminate that cost, we truncate the time down from two and a half years to four months, and we assure the patient that he can continue to see his neurosurgeons and rehab people."

Boothman is currently handling another claim in which a patient thinks his emergency department care was inadequate. After investigating, Boothman concluded that the care was sufficient. But rather than just shooting that back in a message to the lawyer, he arranged a meeting with the patient, his attorney, and the doctor who cared for the patient. The doctor explained why the patient was treated the way he was and why there was no wrongdoing.

"When you do that, you find out that people are a hell of a lot more forgiving than we give them credit for," Boothman says. "The patient said he understood what happened, he appreciated the explanation, and he didn't want to file a lawsuit after all."

Open communication with the patient can preserve the doctor/patient relationship, Boothman says. He makes a point of telling claimants that their relationship with their physicians need not change, no matter how the case is resolved.

Measurable results from new approach

The University of Michigan approach leaves officials there feeling satisfied that they are doing the right thing for their patients and staff, but it also has yielded measurable results. Boothman outlines these effects from the strategy of open disclosure and apology:

- Before 2001, the health system had between 250 and 275 pending claims and lawsuits every month. (That was all open claims, not just new claims filed that month.) After implementation of the new strategy, the number now averages 120 per month and is steadily decreasing.
- The cost per case averaged $70,000 before the open-disclosure policy. Now it is down to an average $30,000 per claim.
- The elapsed time for a claim — the time between when the claim is filed and when it reaches a disposition of some sort — used to average 1,200 days. The average elapsed time is now 300 days.

"That reduction in elapsed time came even though we were digging our heels in on some cases without merit and taking them to trial," Boothman says. "The big savings comes when you eliminate so much of the adversarial element that drags things out. We take a proactive approach and either admit we were wrong and settle it quickly, or we go to court and fight it."

- The health system's annual legal budget was cut from $3 million to $1 million, directly as a result of having fewer claims and lower litigation costs.

Good results also were seen at the Veterans Administration hospital in Lexington, KY, which adopted a full-disclosure policy in 1990, when it was still considered a radical idea. **Ginny Hamm**, JD, a VA staff attorney, says the policy states that once clearly identified, clinical mistakes should be fully communicated to the patient or patient's family, along with an apology, an explanation of the facts, evidence of what you've done in response, and some attempt at resolution, which may include compensation.

Average size of settlement plummets

Ten years later, the average lawsuit settlement had dropped to $16,000, only one-sixth of the $98,000 national average at that time, Hamm says. The hospital has not compiled similar data since then, but she says the trend has continued. The savings comes from reducing court costs and other expenses arising from cases that are drawn out longer than necessary.

The VA hospital's policy calls for corporate apologies on behalf of the institution rather than having individuals apologize for their actions. But the corporate apology must come from someone of sufficient stature.

"We apologize to the patient on behalf of the center, and generally the apology comes from the chief of staff," Hamm says. "If you get a bum car from General Motors, it's nice if the guy at the dealership calls to apologize, but it's something else entirely if the president of General Motors calls to apologize."

The key is to avoid any appearance that you are stonewalling or trying to cover up. That will only antagonize patients and family members, she says.

"They will get madder and madder, and the madder they get, the more money they want," she says. "I can't blame them for that. Our philosophy is that you don't let them get to that point."

Hamm notes that a full-disclosure policy can help with the hospital's public image, as well. She recently had a case in which a patient was awarded several hundred thousand dollars for malpractice, but the media reported heavily on how the hospital had been forthcoming with a full disclosure and had not tried to deny that some compensation was justified.

She cautions, however, that clinicians must be educated about how a full-disclosure policy

works. They must understand that a disclosure comes after initial investigation and is delivered by people with some authority.

"Full disclosure doesn't mean we want everyone who feels bad to rush into the patient's room and start pouring their hearts out about how they did such a terrible thing," she says. "That's not going to help anyone, including the patient. And they might not be accurate about what happened."

That's where the risk manager comes in, Hamm says. The risk manager should be the intermediary among all the involved parties and should ensure that the proper investigation process is followed before a disclosure is made. ■

Insurer sees good results from disclosure, apologies

One prominent insurer is seeing substantial improvements in how malpractice claims are handled by promoting a full-disclosure policy for physicians.

The program promotes disclosure, apologies when appropriate, and open communication between physicians and patients, says **George Dikeou**, JD, recently retired from his position as executive vice president and general counsel for Copic, a prominent medical malpractice insurer in Denver. The insurer started actively promoting full disclosure and apologies in 2001 but met considerable resistance from physicians who had been counseled to never admit anything, he says. When Colorado passed "I'm Sorry" legislation in 2003 that gave physicians some protection from having their apologies used against them in court, the doctors started coming around to the idea.

Since that legislation was passed, Copic has seen positive results. Dikeou says 2,050 physicians — a bit more than a third of all the company's insured doctors — participate in Copic's disclosure program, which encourages them to call Copic whenever they have an unhappy patient. A Copic representative then helps them determine how to proceed. An immediate payment of up to $30,000 can be authorized to resolve the claim.

Since 2003, there have been 1,505 physician/patient meetings, and 1,702 cases were resolved without any payment at all. Another 403 were closed with some payment, ranging from $54 to $30,000. The average payment was $5,683.

The remaining 30 claims were sent to the Copic claims department for routine handling, usually because the case required more than $30,000 to resolve or the patient was still unhappy. Of those 30 cases, 12 were closed without payment, and three were closed with payments ranging from $1,600 to $300,000. The remaining 15 cases are still open.

Less money spent; no attorneys involved

Dikeou notes that all of the claims resolved before going to the claims department did not involve a patient's attorney. Most of the payments made under this program do not require the claimant to sign a release, so theoretically the patient could still sue even after the case was resolved. That has not happened yet, he says. For the cases that go to the claims department, the patient is required to sign a release form.

"It would appear that everything we've learned about how patients want full disclosure so they can know what happened is true, and these numbers bear that out," he says. "The physicians like the program also because they can resolve cases more amicably and faster."

(Editor's note: In next month's issue, Healthcare Risk Management *will explore how the "I'm Sorry" laws in some states promote more full disclosure and apologies, and whether they truly offer as much protection from litigation as proponents claim.)* ■

Fake JCAHO surveyors and false alarms still a problem

Hospitals are still at risk from people posing as surveyors from JCAHO and other accrediting organizations, but authorities say there are no new leads on who the frauds are or why they are trying to gain access. There is a heightened awareness of the impostors, however, as evidenced by recent false alarms.

Officials say terrorists may be behind the multiple incidents in which people pose as JCAHO surveyors, doctors, or government officials to gain access to hospitals. While there still is no way to know for sure what is behind the attempts, experts in hospital security and terrorism say the most likely explanation for these impostors' attempts to gain access is that they are collecting information for future attacks on health care facilities.

(For the full story on the impostors and how they may be probing hospitals for terror attacks, see *Healthcare Risk Management*, June 2005, pp. 61-67.)

Joe Cappiello, JCAHO vice president for accreditation field operations, says the impostors still pose a threat. He urges risk managers to question anyone claiming to be a JCAHO surveyor at your facility. At least two more incidents of JCAHO impostors have been reported recently, in Seattle and Hawaii, he says.

Other odd events taking place too

"And I've heard through the grapevine that there have been ongoing events, not necessarily impostors, but events that you would call odd and suspicious," he says. "Things like people photographing the emergency room and facilities, odd phone calls asking about surge capacity, and weird things like that. Ordinarily we might have said these were people with criminal intent, but in this day and age you can't turn a blind eye to other sorts of things going on."

Cappiello says two people entered a hospital in Seattle and claimed to be JCAHO surveyors, consistent with previous impostor incidents. When hospital officials started questioning them, they disappeared. The incident in Hawaii was similar, with a single person claiming to be a surveyor. But the hospital had just recently completed a JCAHO survey, so officials immediately questioned the man's identity. He became flustered and fled the premises, Cappiello says.

JCAHO continues investigating the incidents and urging risk managers to be vigilant, and Cappiello says the U.S. Department of Homeland Security is now beginning to collect data on the incidents.

"I'm hearing that since the late spring, when we first reported these events, there have been somewhere around 70 events that have been reported," he says. "Those are not all impostor events. They include all sorts of events, including people hanging out on hospital property and taking photographs of the ER."

Hospital officials, and even the general public, are much more aware of the impostor incidents now, Cappiello says. That assessment is borne out by a recent incident at Raritan Bay Medical Center in Perth Amboy, NJ. Cappiello had heard of the incident as another reported impostor, but hospital spokeswoman **Deborah Sellman** says the whole thing was a false alarm. In July, someone called a state tip line and reported overhearing people in the hospital's parking lot talking about "inspectors" and trying to get into the emergency department. Their car had out-of-state license plates.

No one ever tried to gain access to the hospital, but the report garnered media attention locally. Raritan's security director investigated the report and found that the people in question were a family traveling through the area when the wife got sick and went to the emergency department. The husband and another person traveling with them were in the parking lot discussing how the couple was about to buy a new house and needed home "inspectors" to look at it first.

"Someone overheard that conversation, and it became impostors trying to break into the hospital," Sellman says.

Caller claims to be JCAHO phone surveyor

Before working in health care, **James M. Roberts**, CHPA, CAS, director of safety and security for Mercy Medical Center in Baltimore, spent decades working in counterterrorism efforts for the U.S. Army. Roberts, a certified antiterrorism specialist, has been tracking the reports of impostors. He says the incidents appear to be continuing, and he is still worried that the impostors are terrorists.

Roberts says he has heard of another recent incident in which someone called a hospital and said he was conducting a JCAHO telephone

survey. When the hospital official replied that JCAHO does not do telephone surveys, the caller hung up.

As with the past incidents, Roberts says the impostors seem to be asking scripted questions and appear to be part of a concerted effort to gain information about hospitals. Too many hospitals have been contacted for it to be a coincidence, he says.

"Someone is up to something. This is not normal data they are going after," he says. "They want to know our capabilities, our surge capacity for a large number of victims at a single time."

The good news is that it appears easy to scare these folks off, Roberts says. At the first sign of confrontation, they leave. ■

Duke opens web site on recent mix-up in surgery

The Duke University Health System in Durham, NC, has responded to patients' efforts to gain more information about how two hospitals mistakenly washed surgical instruments in used hydraulic fluid instead of detergent and failed to notice the mix-up for weeks. Approximately 3,800 patients were exposed to the contaminated instruments during surgery.

The health system has opened a web page with information on the incidents at http://hydraulicfluidfacts.dukehealth.org. Some of the patients involved in the mix-up had complained that Duke was not forthcoming with information about the situation.

The web site includes patient letters sent since the incident was first revealed, as well as scientific reports and other detailed information.

Staff reported tools feeling 'slick'

The 2004 incident came to light when a report from the Centers for Medicare & Medicaid Services (CMS) concluded that it put patients in "immediate jeopardy" and issued its most serious level of citation. The CMS report indicates that operating room doctors and nurses complained often about surgical tools feeling "slick," and sterilization technicians reported having to run extra wash cycles, but hospital administrators still did not fix the problem for weeks.

The CMS report says 3,800 patients at Duke Health Raleigh (formerly Raleigh Community) and Durham Regional hospitals underwent surgery with instruments that not only were not properly cleaned but were repeatedly drenched in used hydraulic fluid left over from an elevator repair.

(For more on the incident, see *Healthcare Risk Management*, August 2005, pp. 89-90.) ■

PA hospital says results of CPOE reduce drug errors

A Pennsylvania hospital reports that it is seeing tremendous results from a computerized order entry system (CPOE), with an 85.7% decrease in improper doses and a 76.8% decrease in medication omissions.

To make the results even more satisfying, the new system was introduced with almost complete support from the hospital's physicians.

The CPOE system was introduced from day one as a risk management project, not an IT project, says **Joel Diamond**, MD, chief medical information officer at UPMC St. Margaret, a community hospital within the University of Pittsburgh Medical Center umbrella. The hospital worked closely with risk management to introduce CPOE as part of an overall quality improvement initiative at the hospital, he says.

The difference in that approach is that the CPOE plan was introduced to physicians and promoted as a tool for improving quality and patient safety, as opposed to announcing it as a new technological improvement "and now you have to enter your orders electronically," Diamond explains.

St. Margaret used the Millennium system, a CPOE product from Cerner in Kansas City, MO.

Physicians supportive from the start

The hospital's "go live" date for the CPOE system, the date on which the system would be fully functional and everyone was expected to use it, was Sept. 12, 2004. The effort to introduce the plan began about a year earlier.

CPOE was the final piece of a quality improvement effort that included other electronic enhancements enabling the review of lab results and

radiology reports on the computer. Despite the inherent skepticism of some physicians who will resist any changes in how they perform daily tasks, the physicians at St. Margaret were almost unanimously on board with the plan two weeks before the go-live date.

"We did a lot of preparation to get people ready for this change, which included countdown posters showing how many days were left before we went live with the CPOE," Diamond says. "Our original goal was to have a pilot program about six weeks before the real go-live date, but the posters were all counting down to the date for the start of the pilot program. We had prepared the staff so well and got them so psyched up that they assumed the countdown date was for the full hospital start-up."

On the day the pilot program was to start, a Sunday, Diamond went to the hospital to help get the system running. Physicians kept coming up to him all day to tell him how excited they were to put in orders electronically.

"Everyone started putting in orders, so we either had a hospitalwide pilot or we jumped right to full participation on the first day," he says. "Either way, it speaks well to the fact that the staff was primed and ready to go."

Focus on quality, not technology

The introduction of some of the other electronic improvements helped pave the way for the CPOE system, says **William Fera**, MD, medical director of wellness services. Physicians had seen that the other systems were implemented smoothly and yielded good results, so they were receptive to the idea of another system that could improve efficiency and quality, he explains.

To educate the physicians about the CPOE system, St. Margaret sponsored a social gathering off the hospital campus.

"We made it clear that the reason we were introducing CPOE was that it would improve quality at our hospital — not for any other reason," Fera says. "That was sort of our mantra, that CPOE was going to improve the quality of care we give to our patients."

Fera also was up front about the fact that there would be a learning curve and that CPOE might initially slow down order entry as people got used to the new system. But he promised that improvements would come quickly.

"As we went forward, we identified physician champions in each department and did pretraining with them so that they would be familiar with the product when we started training all the house staff," he says. "It worked so well that everyone was ready to go earlier than we thought."

Two weeks after full implementation of the CPOE system, the hospital eliminated all paper forms for order entry, Fera says. There were no complaints by that point.

In the year since the CPOE system was implemented, St. Margaret has seen impressive reductions in the kind of errors that can threaten patient safety. Diamond and Fera offer these examples of how CPOE has improved quality and safety at the hospital:

- medication omissions: 76.8% decrease;
- improper dose: 85.7% decrease;
- extra dose: 50% decrease;
- unauthorized drug: 46.7% decrease;
- drug clarification: 79.1% decrease.

Diamond says the results are better than he thought they would be after one year.

"But now, seeing how well it works, I expect that six months from now they will be significantly better even than what we're seeing at this point," he says. "These numbers are absolutely astounding to us, and they fly in the face of study results that show slower results in patient safety."

There's a reason for that, Fera says. St. Margaret's multidisciplinary approach to rolling out the CPOE system resulted in a level of acceptance and confidence that other organizations might not have achieved before going live with the new technology, he says.

"We involved nursing, and pharmacy, and radiology at every step," Fera says. "So when there were questions or problems with processes and work flow, people were still communicating verbally. Everyone knew exactly what was happening, as opposed to it just being physicians who were on board and knew what was going on."

High rate of physician usage helps

Diamond also suspects that other health care providers have not seen such good results with CPOE in such a short time because they did not have as high a rate of physician usage. When St. Margaret officials first began planning the transition to CPOE, they figured that usage by about 40% of the physicians in the first six months was a benchmark for success. Diamond disagreed and pushed for much higher participation.

That high level of participation is why the hospital reaped such striking benefits so quickly, he

says. Using a mix of CPOE and paper order entry introduces the opportunity for confusion and other errors, Diamond says.

Fera also notes that St. Margaret's system is true CPOE, with the physicians actually entering the orders themselves. Some facilities using CPOE actually have someone other than the physician entering the order into the system, he notes, and that can only slow down the operation while also introducing the potential for more mistakes.

Two weeks after going live with the CPOE system, St. Margaret's underwent a JCAHO survey, which some people thought would be a disaster. Instead, the survey was a big success, and JCAHO raved about how well the CPOE system improved patient safety.

"This is absolutely a reproducible model," Diamond says. "Others can do this same thing. The keys for success are to have a unified team that introduces this as quality improvement, not IT, and to have multidisciplinary support so that everyone is in this together." ■

Clinic Intranet encourages doctors to report concerns

When officials with the Everett (WA) Clinic wanted to change the organization's culture to emphasize patient safety, they realized that a key strategy was getting physicians and employees to report their concerns freely and without fear of backlash. Simple encouragement wasn't enough, so they turned to a more sophisticated solution that not only encourages more candid reporting but also consolidates what used to be a hodgepodge of data-collection methods.

Everett Clinic implemented an Intranet system that allows physicians and employees to report any issues that may threaten patient safety, and the results have been excellent, says **Richard J. Rafoth**, MD, associate medical director for quality and care management.

The clinic's board became interested in emphasizing patient safety about four years ago, Rafoth says, so he and his colleagues studied how they might encourage a more open exchange among the clinic's 210 doctors at 10 locations in Washington state.

The clinic already employed the typical ways of collecting information on patient safety, such as patient complaints, employee safety procedures, and other reporting methods. But while each of those methods yielded some information about patient safety, there was no central way to collect data.

"With four or five different ways to report your concerns, employees never knew which one to use, so they just said, 'I'll do it tomorrow,' and then it never got done," he says. "We decided to come up with a one-stop approach where they could just give us two sentences about their concerns and we'll take it from there."

Simple web page allows quick report

Voice mail was the first option considered, but then the Everett team realized that the clinic system already had an Intranet that was used to communicate between the different clinics. Nearly everyone had easy access to a computer, they realized, so the Intranet seemed like the solution.

"We set up a fairly simple web page that asks who they are but also explains they can remain anonymous if they want to," Rafoth says. "Then it asks them for a little bit about what happened, the patient name and history number if appropriate, and that's about all. It's simple."

The page also asks the user to indicate whether he or she wants to be informed of what happens in response to the submission. While users can remain anonymous or ask not to be updated, the Everett team thought it important to provide that option because trust is built when people can see that the administration listens to their concerns and takes action.

Then the user simply hits the "submit" button, and the message goes to Rafoth.

Some resistance at first from employees

Initially, Everett employees and physicians resisted the idea because they saw it as an invitation to rat on their friends and co-workers. When the clinic announced the program and asked for suggestions for a name, one of the first was "Rat on a Rat." So Rafoth and other Everett managers had to go back to the work force and emphasize that the Intranet messages were not primarily meant to be a way to report co-workers' misdeeds. Rather, the system is intended to give employees an avenue to report concerns.

"The Intranet does not substitute for the usual procedures of speaking to your supervisor about personnel concerns and things of that nature,"

Rafoth explains. "If something like that comes to us through the Intranet, we're just going to turn it right back around and send it to the manager anyway."

The clinic settled on the name "Culture of Excellence" for the patient safety program that includes the Intranet reporting option. The basic rule for the Intranet system is this: Use it to report anything that would annoy or upset you if you were the patient or the family member.

"If the paint is chipped on the wall, if there is no toilet paper in the bathroom, whatever it is, just tell us," Rafoth says. "That was the first phase, to build some trust and make it easy. We'll take anything, any sort of concern, just to get people comfortable with using the system and trusting us that we'll do something with their reports."

Policy promises no punishment for reporting

The other key strategy was to get the Everett Clinic's board to pass a policy that guarantees the reporting system is nonpunitive for the person reporting the problem. Rafoth and others convinced the board to offer that guarantee by showing how well it works in the commercial airline system. Rafoth explains that for professional pilots, the Federal Aviation Administration guarantees no punishment when a pilot reports a problem, even his own mistake. But if someone else reports that pilot's mistake, all bets are off.

"We guarantee that if you report something you were involved in, and it's not criminal or done under the effects of alcohol or drugs, your report will not be used against you," he says. "Our human resources department was probably our biggest barrier to this part of the plan." The human resources department resisted because such a guarantee would run counter to many of the disciplinary procedures already in place, but the clinic CEO eventually overruled them.

"With that guarantee and a lot of education among employees, we won people over to the idea that this can be an effective way for them to air their concerns and improve patient safety," Rafoth says. "We also make a point of personally thanking people who report problems, if they don't want to be anonymous, so we can tell them we really appreciate bringing it to our attention."

In the first quarter in which the system was in place, there were 20 reports. In the most recent quarter, about three years later, there were 120 reports. The quality of the reports has also increased dramatically, Rafoth says.

The first reports included a lot of picayune complaints about the dress code or concerns about housekeeping — things that users were encouraged to feel free to report early on as a way to get them comfortable with the system. But fairly quickly, Rafoth says, the employees and physicians started reporting more serious concerns about clinical errors or procedures that could compromise patient safety.

The administration at Everett emphasized to physicians and employees that they wanted to hear about all patient safety concerns, large and small. The reporting system is not just for alerting officials to big, catastrophic errors. The Everett leaders used the aviation system and the nuclear power industry as examples of how reporting small concerns can contribute to an overall improvement in safety.

"Continual feedback really makes a difference," he says. "They need to know that what they're reporting matters, that you're not just waiting for something big and scary."

Late radiology reports show system problem

The benefits of the Intranet reporting system can be seen in one incident that Rafoth recently investigated. Complaints about X-ray misreads or late radiology reports, which come in once in a while under normal circumstances, suddenly jumped to five messages in a week that said radiology reports were eight days late. Rafoth realized this flurry of messages represented a significant problem, because if he got five complaints, there were probably 50 more that weren't reported.

When Rafoth investigated, he found that the clinic had recently switched to a sensor system for electronic tracking of radiology reports. No one realized that the system was so efficient at moving radiology films through the system that the radiologists couldn't keep up.

"We were five days behind in reading films," he explains. "So I spoke to our people and said they had to put some pressure on the radiology group to staff up and take care of that backlog. This was ridiculous, because an eight-day lag is just a risk-management issue waiting to happen."

The radiology group responded with a more concerted effort to clear the backlog and prevent future delays.

"All of this happened because of five different people sending me reports saying they wanted an explanation for this eight-day lag," Rafoth says. "Without this system to let me know something was wrong, that situation

would have continued a lot longer."

Rafoth says the Intranet reporting system is part of a larger effort at Everett to implement a culture of safety. Nearly all incident reports and risk management data are now consolidated into a central system that allows him to search for related information from a number of sources.

Small changes eventually add up

The Intranet system allows Rafoth to keep a log of everything done in response to a report, and he can cut and paste e-mails into the log. Then the whole thing can be filed as a record of the report and resulting action. Plus, he can send the file or parts of it to the person submitting the report to show what action was taken.

Rafoth estimates that he gets a couple reports a day from the Intranet system, and most of them contain at least a small issue that could threaten patient safety if not corrected.

"To me, improving patient safety is more about making hundreds of these small changes instead of implementing some big, massive initiative," he says. "I like this approach because it's sort of a small, rapid process improvement applied to patient safety. At the end of the year, I figure I've made 300 smaller things better, and over time, that adds up to a bigger change." ■

Reader Question

Best to comply with the spirit of the 250-yard rule

Question: We're uncertain about whether the 250-yard rule still applies with EMTALA. When the final rule came out in 2003, we heard conflicting opinions about whether we were still responsible for providing emergency care within 250 yards of the hospital. Is there a definitive answer yet?

Answer: The 250-yard rule still applies, but exactly how you measure it is not so clear, even two years after the final EMTALA rule was released, supposedly clarifying all the grey areas.

The infamous 250-yard rule was prompted by a 1998 case in which emergency department staff did not leave the hospital grounds to render aid to someone nearby. After this incident, risk managers were told for several years that the hospital is responsible for complying with EMTALA not just within the physical confines of the hospital but anywhere within 250 yards. But when the final EMTALA rule came out in 2003, many legal experts interpreted it to mean that risk managers could worry much less about the 250-yard rule because EMTALA now applies only to a much more narrow definition of hospital property.

William M. McDonnell, MD, JD, a fellow in pediatric emergency medicine at The Children's Hospital in Denver, has never been comfortable with that "narrow" interpretation, and he now tells *Healthcare Risk Management* that risk managers are well advised to use a generous yardstick when obeying the 250-yard rule. But he also says complying with the rule need not be as burdensome as some assume.

CMS says rule eased, but no formal statement

When the final rule was released, **Charlotte Yeh**, MD, FACEP, CMS regional administrator in Boston, explained that the final EMTALA rule did not eliminate the 250-yard rule, but it did change where EMTALA applies. The 250-yard rule still applies, but only in areas that otherwise would qualify for EMTALA coverage under the final rule, she says. That means public areas with no connection to the hospital do not qualify, even if they are within the 250 yards, she says.

So where are you responsible for EMTALA? Yeh says dedicated emergency departments definitely count, and so does any other hospital property within the 250 yards, including sidewalks, driveways and parking lots. But she says EMTALA excludes provider-based entities operating under a different Medicare provider number, as well as nonmedical facilities, even if they are within 250 yards, Yeh says.

"This would mean that a public highway within the 250-yard rule would not fall under EMTALA," she says.

However, CMS has never released a formal statement to that effect, leaving some question as to how individual situations may be handled.

Without a formal statement ratifying more relaxed interpretations, McDonnell says he still would be cautious about telling emergency department staff that they have no obligation to an injured person lying in the street. The only

interpretation that matters is the one CMS uses when an allegation is made against the hospital, and the wording of the law leaves plenty of room for disagreement, he says.

In the 1998 incident, the Department of Health and Human Services' Office of Inspector General fined the hospital, arguing that the patient's presence in the close vicinity of the hospital's main buildings constituted "coming to the ED." Subsequent EMTALA regulatory amendments specifically included regulations defining the "hospital campus" as areas "located within 250 yards of the main buildings, and any other areas, determined on an individual case basis, by the HCFA [now CMS] regional office, to be part of the provider's campus."

Some legal analysts have concluded that the final rule eases the hospital's obligations to such patients because the final rule now defines "hospital property," rather than the previous "property."

But McDonnell says that distinction is of little significance for purposes of the 250-yard rule. The final regulations clearly state that some nonmedical areas are still within the scope of EMTALA, expressly including hospital parking lots, driveways, and sidewalks. "Moreover, the specific exceptions to the 250-yard rule are only for specified 'areas or structures of the hospital's main building.' These exceptions are not addressed toward areas outside the hospital's main building, including public roads and sidewalks."

Courts may still see liability

Writing recently in a law journal article, McDonnell explains that if CMS interpreted the 250-yard rule as applying only within the hospital's formal property lines, "it would render the 250-yard rule both redundant and inconsequential." And if the rule were interpreted to apply only to patients on hospital property, it would duplicate the final EMTALA rule regarding people who present at a hospital location other than a dedicated ED. "The 250-yard rule would then become redundant and unnecessary," he writes.[1]

McDonnell calls on CMS to announce that it will aggressively enforce the 250-yard rule under the older, more liberal interpretation. If CMS does not do so, or if the agency states more clearly that the rule applies only within hospital property, then he warns that risk managers would be playing with fire by not treating people who may be in that 250-yard zone but off the property.

"Regardless of CMS' enforcement decision, individuals injured by EMTALA violations have a private right of action against the hospitals responsible for such injuries," he says.

In an interview with *HRM*, McDonnell says the best course for risk managers is to continue with a cautious approach that ensures anyone who could even remotely be considered to be coming to your ED receives proper care.

"Until you're given some indication otherwise from CMS in a formal statement, I would advise risk managers to enforce the 250-yard rule the same way they did before the 2003 final rule came out," he says.

But McDonnell also notes that even the older interpretation does not pose as much of a burden as risk managers may think. There is no need to set up patrols of nearby property, for instance. Comply with the intent of the rule, he says, by ensuring that ED staff never deny needed care over a technicality.

"The rule requires that when the hospital is aware of someone with an emergency medical condition, and that person is attempting to reach the hospital for emergency care, and this comes to the attention of the hospital, then you cannot deny treatment just because the person didn't make it onto hospital property," he explains. "But if that same person is on the property but you have no reasonable way to know that, you're not responsible. The rule was intended to avoid situations in which you're peering out the door and telling the person he didn't get close enough so it's not your problem. No one can argue with that."

Reference

1. McDonnell J. Will EMTALA changes leave emergency patients dying on the hospital doorstep? *J Health Law* 2005; 38:77-93. ■

COMING IN FUTURE MONTHS

- Katrina: Risk and management
- Fall hazards most often overlooked
- Coverage of 2005 ASHRM meeting
- Do 'I'm Sorry' laws really offer protection?

CE objectives

After reading this issue of *Healthcare Risk Management,* the CE participant should be able to:

- **Describe** legal, clinical, financial, and managerial issues pertinent to risk management in health care.
- **Explain** how these issues affect nurses, doctors, legal counsel, management, and patients.
- **Identify** solutions, including programs used by government agencies and other hospitals, for hospital personnel to use in overcoming risk management challenges they encounter in daily practice. ■

CE Questions

Nurses participate in this continuing education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue. Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material. After completing this activity each semester, you must complete the evaluation form provided and return it in the reply envelope provided in order to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you.

13. What was the message that Rick Boothman, JD, chief risk officer at the University of Michigan Health System, delivered to local trial attorneys?
A. We will not automatically resist lawsuits with merit, but we will vigorously defend those without merit.
B. The hospital will insist on meeting with patients initially without their attorneys present.
C. We will defend all cases vigorously and will not settle any claims.
D. A settlement is possible on any claim to expedite resolution.

14. Before implementing its full-disclosure policy, the average cost of a claim at the University of Michigan was $70,000. What has that figure dropped to now?
A. $30,000
B. $50,000
C. $20,000
D. $10,000

15. At St. Margaret Hospital, a community hospital within the University of Pittsburgh Medical Center umbrella, how much did a CPOE system decrease improper dose errors?
A. 23%
B. 39%
C. 62.8%
D. 85.7%

16. According to Richard J. Rafoth, MD, associate medical director for quality and care management at the Everett (WA) Clinic, how should employees use the Intranet to report patient safety issues?
A. Report anything of concern; no issue is too small
B. Report only "serious, life-threatening" patient safety issues
C. Report only incidents in which a patient was actually harmed
D. Report only incidents in which you were directly involved in providing care with an adverse outcome

Answers: 13. A; 14. A; 15. D; 16. A

Healthcare Risk Management's
Legal Review & Commentary™
A Monthly Supplement

Adverse drug interaction involving Coumadin results in $2.5 million Alabama verdict

By **Jan J. Gorrie**, Esq.
Buchanan Ingersoll PC
Tampa, FL

News: A patient on Coumadin therapy was admitted after suffering from a fall. The attending physician prescribed Toradol and Phenergan, and the next day the patient was discharged home. The following day she fell into a coma and was readmitted. She died several days later. Her estate claimed that all the treating providers were negligent in their care and treatment of the decedent. The jury concurred and awarded her estate $2.5 million.

Background: The woman had previously suffered a stroke and was on Coumadin therapy. After falling in her home, she was seen in the emergency department and then admitted to the hospital, where her attending physician prescribed Toradol and Phenergan. Nurses were charged to watch for any changes in the patient's physical presence; however, none informed the doctor that the patient became lethargic and had changes in her blood pressure, heart rate, and respiration. Despite these warning signs, she was discharged home the following day.

Once home, she fell into a coma and was readmitted to the hospital through the ED. She remained in a coma and died several days later of a subdural hematoma.

The plaintiff claimed that the hospital's staff failed to obtain copies of the decedent's coagulation studies, failed to investigate the history of Coumadin therapy, failed to order a CT scan, failed to order a blood test, failed to report the changes in physical condition, and failed to obtain a neurological consult.

The defendants countered that the decedent would not have survived even if surgery had been performed following a neurological consult.

The case went to trial and the plaintiff was awarded a cumulative $2.5 million, with all defendants participating.

What this means to you: "The circumstances of this case and of the one that follows **[see next case, p. 3]** are remarkably different, but they both illustrate the serious consequences of unmonitored anticoagulation therapy and the failure to obtain adequate patient history," says **Lynn Rosenblatt**, CRRN, LHRM, risk manager, HealthSouth Sea Pines Rehabilitation Hospital, Melbourne, FL. "They demonstrate the compelling need for accurate assessment on the part of health care professionals. This case does not appear to have been adequately assessed upon presentation in the emergency department.

"The most serious breach in this case may have been the failure of the ER staff to recognize the potential for a subdural hematoma following a fall," Rosenblatt says. "Failure to obtain a reliable history, followed by the failure to obtain substantiating laboratory studies and appropriate diagnostics, most likely led to the tragic results."

"This patient most likely presented with headache and nausea, which may be deduced from the medications prescribed. Both are common symptoms of increased intracranial pressure. Combined with a past history of stroke and the Coumadin therapy, there existed a strong case for a full neurological assessment," adds Rosenblatt. "Had the ER crew been aware of the patient's anticoagulant state, the assessment protocol should have included coagulation-specific lab work and a CT scan or even an MRI to rule out intracranial hemorrhage or the possibility of evolving stroke. Patients with a history of stroke have a higher risk of subsequent cerebral vascular accident than does the general public.

Patient's stroke history likely unknown

"Toradol is generally contraindicated in a patient with increased potential for bleeding. Phenergan is a central nervous system depressant and could have masked the early evolution of the subdural bleed. The failure of the physician to order appropriate diagnostics, together with the use of these medications, indicate that the attending likely had *no* knowledge of the patient's prior stroke history or Coumadin therapy," observes Rosenblatt.

"As anyone who routinely treats elderly patients can attest, the possibility that a patient may be on anticoagulation therapy cannot be safely overlooked. Many patients are maintained on Coumadin for a variety of conditions; yet, when questioned, patients are seriously deficient in understanding the risks as well as the benefits of this medication," she says.

Education lacking for elderly patients

"While patients in this situation are frequently followed closely in Coumadin clinics, many are not. Drug and food interactions go undetected. Patients frequently do not understand the risks related to anticoagulation therapy. They are noncompliant with essential laboratory monitoring, and they frequently are brought to the ER unable to provide accurate medical histories and medication profiles," continues Rosenblatt.

"Many patients wear bracelets or carry some sort of notification that they are diabetic, have heart disease, or have a seizure disorder. Few indicate they are on anticoagulation therapy, an equally serious medical condition. This fact alone demonstrates the need to educate patients about the medications they take. While the dispensing pharmacist provides computer-generated literature on medication specifics, that is not a substitute for a one-on-one educational encounter," she says.

Documentation innovations may help

"Also in the elderly population, a well-informed family member or health care surrogate is as essential as a well-educated patient. Physicians and allied health professionals whose professional practice includes the elderly should understand the need for communication both with the patient and with the family. The use of patient alert bands, wallet cards, and accessible medical histories could prevent similar situations from occurring," adds Rosenblatt.

"Campaigns designed to educate the public about the treatment they are receiving and to document treatment in an accessible manner will promote a new era of patient safety. Computer technology can assist in maintaining an up-to-date CD of the patient's medical history. Volunteer groups and marketing programs targeting the elderly population may be enlisted to assist in establishing such programs in retirement communities," says Rosenblatt, "for an informed public is the patient's most reliable advocate."

Reference

- Mobile County (AL) Circuit Court, Case No. 02-2075. ■

Heparin use contributes to death: $1 million arbitration

News: A middle-aged woman presented at the emergency department with flu symptoms. She was also disoriented. After initial tests were performed — principally a spinal tap, in which blood was found — she was admitted and was eventually transferred to the intensive care unit. It was suspected that she had suffered from a heart attack, so heparin was initiated. Approximately five days later, she was noted to have bilateral paralysis and was subsequently transferred to another facility, where she was also diagnosed as having lung cancer. She sued the hospital and attending physicians for failure to properly monitor her care and treatment, specifically claiming that the continuance of heparin was contraindicated.

A confidential high/low agreement was reached with the physician, and the arbitration award against the hospital was $1 million.

Background: The plaintiff, age 58, went to the ED with a fever and flu symptoms. She was also confused, disoriented, and hypoxic. A chest X-ray revealed acute bilateral pulmonary infiltrates, indicative of pneumonia. A lumbar puncture was performed to check for meningitis. The spinal fluid obtained during the tap contained red blood cells. She was started on oxygen and admitted to the hospital.

The following day, her respiratory distress worsened, and she required intubation. She was transferred to the intensive care unit. Once in the ICU, she complained of anginal pain. A possible myocardial infarction was diagnosed, and IV heparin was ordered. The heart attack was ruled out over the next 48 hours, but the plaintiff remained intubated and on IV heparin in the ICU for approximately five days. Once she was extubated, it was noted that she had bilateral paralysis of the legs. An MRI was performed and revealed extensive blood in the intradural and epidural spaces from the lumbar to the thoracic region, caused by a spinal hematoma. The plaintiff was transferred to another hospital for treatment of what was determined to be permanent paralysis.

The plaintiff brought suit against the hospital and attending physician, claiming that the IV heparin was contraindicated because of the blood found in the spinal tap and because of questionable cardiac changes. She also claimed that the continued use of IV heparin after the myocardial infarct was ruled out contributed to the hematoma. The plaintiff maintained that daily and thorough examination should have been performed in the ICU and that the nurses failed to conduct regular neurological assessment of her extremities while in the ICU.

The defendants contended that the administration of IV heparin in a patient with a bloody or traumatic spinal tap was not contraindicated and that the formation of the spinal hematoma was abrupt and could not have been diagnosed and treated in time to avoid paralysis. The hospital maintained that the nurses did in fact conduct routine assessments.

A confidential high/low agreement was reached with the attending physician prior to arbitration. The arbitration award was for $1 million against the hospital.

The plaintiff died shortly after arbitration as a result of lung cancer diagnosed during her hospitalization for paralysis.

What this means to you: "Heparin is a medication with serious ramifications, requiring careful supervision and monitoring, which apparently did not occur," Rosenblatt says. "Nor does it appear that this patient was adequately assessed upon presentation in the emergency department. The physicians and nursing personnel providing care to this patient failed to communicate with each other, obtain an adequate history, and place proper emphasis on coexisting morbidities. The patient was reported to be a healthy adult with a sudden onset of relatively common symptoms of malice, fever, and possible pneumonia. A lumbar puncture was appropriately initiated to rule out meningitis, but the presence of red blood cells in any significant number should have triggered further investigation," she notes.

"When the patient began to complain of significant unrelieved chest pain, the possibility of a cancerous lung lesion, together with the positive red blood cells in the spinal fluid, may indicate a differential diagnosis to the suspected heart attack. Without the results of other clinically appropriate tests, it is difficult to determine which possibility initially carried the greatest weight, but the history speaks toward a serious pulmonary condition," she adds.

"The use of heparin in a potential myocardial

infarction may have been appropriate, but this therapy requires careful monitoring of the patient's prothrombin time, which is the most common way to express the clotting time of blood, particularly in a patient with red blood cells present in the spinal fluid. Once the MI was ruled out, any treatments initiated as a result of the suspected cardiac infarct should have been immediately reevaluated," says Rosenblatt.

"This raises the issue of critically ill patients who are concurrently under the treatment of several consultants, each of whom has a different medical focus. The patient's initial presentation of pneumonia and the positive spinal tap appears lost to the potential MI. The narrative does not discuss what happened after the MI was ruled out but does indicate that the other presenting symptoms of hypoxia, potential bleeding of questionable etiology, and intractable chest pain were not adequately followed," she explains.

"Given the continued use of IV heparin, an astute nurse or attending physician was remiss in not assessing all possible indicators of bleeding, such as lower-extremity weakness, any neurological burning sensation, or early onset of pseudo-paralysis. Among the possibilities of over-anticoagulation are a change in orientation, lethargy, and complaints of severe headache, slurred speech, bloody urine and stools, coffee-colored emesis, and other classical indicators of hemorrhage," adds Rosenblatt.

"The question arises as to what lab studies were performed over the following days, and was there any connection made to the preexisting symptoms? Did the nurses assess the patient daily, turn the patient frequently, and question the labs ordered and results obtained? In any patient receiving IV heparin, the possibility of hemorrhage is never far from reality," she notes.

"All of this leads one to believe that perhaps a full history may never have been obtained — and if it was, the information was not well circulated among the various consultants on the case. Such an oversight may have also been the underlying cause of the coumadin case," notes Rosenblatt.

"Hospitals, and particularly emergency departments and walk-in clinics, have an undeniable duty to obtain an accurate history and perform a meaningful assessment. This is not always easy, but it is necessary. Arguing that the delay to properly diagnose did not affect the outcome of either case is like arguing that failure to repair faulty brakes on one's car did not cause an accident involving brake failure," Rosenblatt concludes. ■

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PATIENT SAFETY ALERT™

A quarterly supplement on best practices in safe patient care

HCA nears completion of systemwide eMAR

A million medical errors identified and thousands of medical incidents already have been averted

While most American hospitals and health systems have yet to take the plunge into electronic medication administration (eMAR), Nashville, TN-based HCA (Hospital Corporation of America) soon will complete the implementation of eMAR across its entire network of 190 U.S. hospitals. According to HCA, eMAR is in place in less than 10% of U.S. hospitals; of these, about half are HCA facilities and about another third are VA facilities.

Already, HCA's system has demonstrated its value. In 2004, even before all hospitals were on-line, there were 51 million doses scanned, 1 million errors identified, and 20,000 serious medical incidents averted. The 2005 numbers, which will be released soon, are anticipated to be even more significant. And beyond the identification of errors and averted incidents, HCA already is using the data to identify process problems and as a foundation for PI projects aimed at bringing those numbers down.

HCA's eMAR system got its impetus in 2000, when 126 employees and physicians representing each division of HCA came together in an intensive two-day meeting to review evidence describing the scope of medication errors and the effectiveness of potential solutions. From the meeting surfaced the ideas behind two new technologies for improving medication practices: eMAR and ePOM (electronic provider order management).

Since such systems were in use by so few hospitals at the time, what led HCA to believe they made sense? "Basically, the main thing that influenced us was the research that was out there — plus common sense," recalls **Jane Englebright**, RN, PhD, vice president of quality and patient safety. "Bar-coding technology itself has been around for awhile, and as we got going, the results pushed us to go even faster."

Here's how eMAR works:

- Each patient admitted to an HCA facility receives an armband with a bar code. The bar code corresponds to the patient's current medical record, including drug history, allergies, and lab results. Bar-code identifiers also appear on shrink-wrapped doses of medication.
- Before a medication is administered, bar codes on the patient armband and the medication are scanned, allowing the nurse or therapist to verify the right patient is receiving the right drug in the right dose at the right time.
- The software checks each medication against the patient's drug history and lab results. If conflicts or potential drug interactions are identified, warnings alert the nurse to double-check, verify, and/or call the doctor before administering the medication.

The hardware was a bigger challenge than the system, for staff and management, Englebright says. That's because HCA was using MEDITECH as the vendor for its clinical information system, so there wasn't a steep learning curve on the technology. "It was harder moving from a hard-wired system to wireless and to a mobile workstation. For example, some of our hospitals had gone to carpeting in the halls to control noise, but that makes it harder to roll the carts."

In finding the right equipment, HCA went through a couple of different generations and still is looking for the ideal hardware. "It's not a one-size-fits-all situation. Different patient environments need different hardware," she adds. At present, HCA is using Dell for its equipment.

Equipment was not the only adjustment that had to be made, Englebright says. "Some processes had to be changed. For example, it was common

practice to have one multidose vial for all nurses on the floor. When you have all you need right at the bedside, however, multiple vials make more sense."

As Englebright points out, eMAR does not address the ordering or distribution phases of medication but focuses on the administration phase. Nevertheless, the system provides a wealth of information. "We can tell how many of the errors were the result of missed doses, wrong patient/wrong med, and so on. We were surprised at how many errors were wrong-med errors."

The most common error, she notes, was the administration of a sustained-release formulation when it should have been an immediate-action formulation. "It was, however, a little comforting the patients were not getting the wrong meds."

In terms of serious medical incidents averted, of course, the only things that can be measured are errors that didn't happen. "If it was the wrong med for the wrong patient, we assumed it to be serious, even though it could have been a vitamin that was given," Englebright says.

The "warnings" referred to earlier are a key component of the system. When the nurse is at the patient's bedside, he or she pulls up on the computer screen a medical profile that has a list of all the meds the doctor has ordered. The nurse then scans the dose. "If it is incorrect, they get a visual and an auditory warning — a little beep — she says. "Then they check the patient's armband, and if it's not a match, they also get a warning." At any point along the way, the nurse can abort the process, "and that's what we count as an averted error," Englebright adds.

In December 2004 alone, eMAR at HCA hospitals evaluated 7.4 million medication doses. The bar-coding system noted 233,540 warnings and prevented 183,215 doses from being administered. Without eMAR, HCA anticipates 2% of the doses would have been given in error.

In addition to helping staff avoid potential errors, are the data being used educationally to help lower the number of potential errors? "Yes. Absolutely," Englebright notes. "Probably one of the most important things we've done is looking at our late meds. You can get the computer to tell you what happened in the process of a chart, which can point out why you are late." This has led to quite a bit of process improvement activity, she says. "The No. 1 reason, it turns out, has been in X-ray. The system does *not* tell you how to fix that. That's what individual teams at hospitals need to figure out, now that we know where the problem lies."

HCA gradually is rolling out the ePOM system as well. It is a process in which physicians submit medical orders for their patients using a clinical software application in CPCS, HCA's Clinical Patient Care System. The system is designed to automate prescribing and clinical decision making and improve timeliness of care.

HCA says ePOM will increase patient safety because it will:

- reduce medication ordering errors and injury to patients;
- improve accuracy and completeness of physician orders;
- reduce time from order to initiation of order;
- reduce physician time spent on admission, discharge, and transfer orders;
- increase physician use of clinical information system.

"In studies we've looked at, the most common errors involved lack of information on the patient or lack of information about the drug — not knowing interactions, and so forth. We think the computer is a wonderful tool to solve those problems, Englebright adds. If, for example, a physician is going to order a heart medication, the patient's pertinent lab results will be displayed on the screen as they order it."

More than 400 physicians in three pilot facilities have reviewed the electronic provider ordering software. Physicians in 12 more facilities will be live on ePOM by the end of 2005. The rollout to all HCA U.S. hospitals will continue as pilot results are reviewed. Englebright says she is extremely pleased with what the eMAR system has shown and taught staff at HCA. "Last year, while we were still rolling out and only 114 hospitals were on-line, we know we gave 51 million doses through the system. How did we *ever* think we did this right all the time? We averted over 1 million errors last year."

In addition to improving performance within its own facilities, HCA has gathered a wealth of information it is willing to share to improve patient safety in all hospitals. "We are currently attending conferences and sharing our results, and we hosted two recent meetings where people from other organizations have come in and seen the eMAR in action," Englebright adds.

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