

# Medication Safety Issue Brief

## *Using a System-wide Approach*

4

of 6 in a series

Part four of this six-part series explains how hospitals are using a systems approach to analyze errors and near-misses and improve patient safety. The American Hospital Association, the American Society of Health-System Pharmacists and *Hospitals & Health Networks* developed this project with the generous support of McKessonHBOC. Tear out this card for future reference. Additional copies are available in PDF format on the ASHP and *H&HN* Web sites ([www.ashp.org](http://www.ashp.org) and [www.hhnmag.com](http://www.hhnmag.com)). ASHP members can also call the ASHP's fax-on-demand service.

### ● SUMMARY

The meat and potatoes of error reduction is in the root cause analysis of mistakes and near-misses, and the identification of new, safer ways to carry out tasks. This is also the most technical part of patient safety. But hospital leaders find that their staffs can learn from mistakes using home-grown expertise and wisdom, and that it works best if everyone is willing to open up their daily work lives to some well-intentioned scrutiny.

### ● ISSUE BRIEF

Five years ago the term “root cause analysis” wasn’t commonly heard in hospital boardrooms. But with a new national emphasis on patient safety, hospital executives and trustees are learning about systems theory—an engineering concept that recognizes the complexity of many everyday tasks and the human factors that can make them go awry. “People in just about every hospital, whether they’ve experienced their own sentinel events or not, know about root cause analysis,” says Richard Croteau, a physician, former aerospace engineer and executive director for strategic initiatives at the Joint Commission on Accreditation of Healthcare Organizations.

That may be in part because hospital accreditors have placed a greater emphasis on patient safety, a policy that was recently reinforced with new standards calling on hospitals to coordinate patient safety activities and to proactively seek out mistakes in the making. “There’s enough information available now for any organization to identify all the things they do that are high risk,” says Croteau, noting that hospitals should have a systematic process to identify high-risk systems. That process should include learning from experience—such as analyzing what caused errors and near-misses—as well as looking to published literature on what is already known about high-risk processes.

It is easier to anticipate problems than to analyze what went wrong later, largely because the people involved in an error often are defensive. Still, analysis of errors and near-misses is crucial to improvement. To create a regular practice of analysis, an institution should assign oversight to a multidisciplinary panel such as a quality committee. The effort should be facilitated by an individual with a background in risk management or performance improvement. But the actual analysis should involve staff and physicians on the front lines, Croteau says.

Administrators need to support the analysis in several ways: first, by establishing a non-punitive atmosphere; second, by taking a personal interest in whether the analysis takes place; and third, by committing the resources to fix any problems that are identified. “There’s a real role model imperative for leadership,” Croteau says.



The Medication Safety Issue Briefs are a joint project of the American Hospital Association, the American Society of Health-System Pharmacists and *Hospitals & Health Networks*, and are made possible through the generous support of McKessonHBOC.





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### ACTION *Agenda*

- Choose a leader from risk management or quality improvement to oversee the process of analyzing errors and near-misses.
- Conduct the investigation and fashion improvements on an interdisciplinary basis.
- Be sure to include those staff members most involved in the process to get the most accurate picture of how it is done.
- Along with analyzing past problems, anticipate future potential mistakes. Review the areas of the hospital with the highest-risk activities, and look to the literature to learn from other hospitals (check the sentinel event alerts from JCAHO, along with the medication safety alerts from the Institute for Safe Medication Practices).
- Be willing to provide the resources necessary to fix problems identified by the analysis, and be sure staff members know their work will be taken seriously.
- Avoid placing blame on any individual when a mistake occurs to encourage honest communication about what went wrong.
- Share with all staff what is learned about the system weaknesses and the improvements.
- Turn every adverse drug event into a learning opportunity.

### ● CASE STUDIES

*St. Luke's Episcopal Hospital, Houston:* The concept of learning from mistakes is getting a workout at St. Luke's, where near-misses and errors are reviewed with a root cause analysis. The new policy, in place for about 18 months, has resulted in 20 analyses of mishaps everywhere from the operating room to the magnetic resonance imaging machine, whether they resulted in serious harm or not. Everyone involved in an incident participates in the analysis, from nurses to doctors to administrators, and they consider all the factors that could have contributed to the problem. Pains are taken to avoid placing blame on individuals. "We have demonstrated to our staff that we aren't hanging anybody," says Jack Lynch, CEO and executive vice president of St. Luke's. "We want to have tools that assist nurses and pharmacists to provide care as safely as possible." Safety backups, he adds, will improve retention and recruitment if staff feel they can do their jobs without worrying about blame.

A new, anonymous hotline encourages reporting of errors. The hospital's director of accreditation and quality takes the lead on each analysis, which can take a few weeks to several months to complete. As a result, changes have been made in a number of processes, such as the way drugs are dispensed and received in the operating room and double-checking that no sandbags get into the MRI along with a patient. "We're trying to look at anything that could have been a life-threatening or injuring event," says Lynch. "We also want to look beyond what might be the most obvious cause of an event and look more broadly – could that event have occurred in one of our clinics, or in the lab instead of the pharmacy?"

*Legacy Good Samaritan Hospital and Medical Center, Portland, Ore.:* In embarking on a major commitment to patient safety, Legacy found it needed to know how many medication errors occurred so it could track how well the error-reduction efforts worked. Because staff members don't always report mistakes, Legacy decided to conduct an observational study. Observers are assigned to watch a sampling of patients receive their drugs. That information is compared with charts to see if the prescriptions were carried out correctly. While it was a time-consuming effort to track about 2,000 doses, the process worked well, says Lynn Belcher, a clinical specialist in the hospital pharmacy. "It did give us some powerful data. The data will be used to make changes in the medication system."

The hospital's medication use committee oversaw the study, using about a dozen observers from various departments, such as nursing, pharmacy and quality improvement. Those departments also pitched in to pay for the study. The observers were trained and spent about two months documenting medication dose administration on randomly selected shifts, including different times of day in various units. Belcher said training is key because observers bring varying levels of experience to the process. "You also need defined protocols and guidelines for what they need to be documenting on each observation," she says. The results were in line with what other institutions have found, and will give Legacy an important benchmarking tool. "We'll use it again as a tool to revalidate changes we make in the process," Belcher says.