PATIENT SAFETY ALERT™
A quarterly supplement on best practices in safe patient care

Hospital safety initiative targets behavioral health unit

Falls committee takes careful look at geropsych issues

The behavioral health department may not be the first place you would look to launch a patient safety initiative, but the team at Overlook Hospital in Summit, NJ, is expecting just such an undertaking to yield big dividends.

Two years ago, the hospital's falls committee and a targeted subcommittee began examining the global issue of falls prevention in behavioral health as well as more specific gerontology psychology, or "geropsych" considerations.

What caused Overlook to point its patient safety efforts in this direction? "There were two things," recalls **Tina Maund**, RN, MS, director of performance improvement. "We had had some issues with patient falls specifically, and we also have a growing geropsych population."

Patient injuries in behavioral health units, Maund explains, can be medication-related, or they can involve behavioral issues such as attention-getting actions. "Then, there are other usual fall factors, such as slippery floors," she adds.

"Rugs, equipment, and cords can also play a role," notes **Linda K. Kosnik** RN, MSN, chief nursing officer.

Unique considerations

While patient falls in particular are a natural consideration of those concerned with safety, this initiative also had to take into consideration the unique characteristics of the patient population.

"It came onto our radar screen because it is one of the things we're always looking to solve and is always a focus of the Joint Commission [on Accreditation of Healthcare Organizations] and the [state] department of health because of the potential impact on increased length of stay and patient injuries," Kosnik says.

"You just *have* to track it; so, even though our data said we were within an acceptable range, we personally felt the numbers were too high. Patients should not have a greater injury when they leave than when they come in,"she adds.

The challenge was that much greater at Overlook because of the growing geropsych population, Maund explains. "They have different needs than the normal inpatients in behavioral health.

"They are often confused or suffer with dementia; some have functional status limitations at times and, thus, are not as independent as the usual patient in behavioral health," she says.

"So, as we looked at the physical environment, we wanted to try to come up with some design elements that not only would enhance patient safety but would also support patient orientation and functional status."

Committee gets to work

The falls committee and geropsych subcommittee had a multidisciplinary composition:

- nursing personnel;
- several physicians (including a psychiatrist);
- managers of the behavioral health unit;
- medical leadership;
- environmental;
- engineering;
- clinical nurse specialist;
- occupational therapy;
- rehab.

"One of the things they did that was of extraordinary value in their analysis was a complete

literature search — some 270 articles," notes Kosnik.

"Every member was assigned a certain number of articles." One of the things they learned, she says, is that "No one does falls well. We are very good at identifying risk factors, but not consistently good at solving problems."

Thus the group began searching for solutions to problems. One of their first focuses, for example, was footwear. "To help reduce falls, we looked at footwear and encouraged patients to wear shoes with nonskid soles," Maund says.

But the committee went farther than that. In looking at their slipper-socks, they realized that when patients were in bed, the socks would rotate, so that the side with the skid-protect end in would be in the wrong position. "We changed to a product that had rubber treads all the way around," she notes.

They also assessed the unit to see if there were obstructions in hallways, inadequate lighting, or other aspects of the rooms themselves that could generate falls. This led to some other basic changes.

"We actually videotaped the units from the point of view of people walking about," Kosnik says. "The person who did the taping was a psychiatrist. In doing this, he had tunnel vision similar to what the patient had, and he actually tripped!"

This exercise proved very valuable, as was having an expert in occupational therapy on the team. "He was instrumental in terms of talking about what has been helpful in patients' homes and nursing homes, how to lay things out, such as cords and garbage pails. He helped us come up with innovative solutions to create a safer place," Kosnik points out.

Renovation offers opportunities

At the same time the safety program was under way, plans were being drawn for a newly redesigned behavioral health unit. "This gave us the opportunity in the planning phase for the geropsych subcommittee to look at some environmental and architectural features to enhance safety," says Maund, adding that "there was not a lot [of literature] out there, so we experimented."

During the planning phase, Maund and the occupational therapist joined the planning group, along with the facilities manager and the architect. "We were able to look at one particular area designated for geropsych to cohort and build in features to help them be reoriented, to draw them back to where the rooms would be and to look at other safety features," she says.

The team came up with a number of revisions to the original plan — addressing, in particular, some design elements that were aesthetically pleasing but were potential barriers or obstacles to patients who tended to be forgetful or confused.

One example involved an angular wall that jutted out: "The unit is L-shaped, and the patients' rooms are at the shorter end," Maund explains.

"The designers didn't want to move the wall, so we came up with an approach that involved coloring the walls so that one side was the same color as the geropsych area and the other a contrasting color that led to the other end. This will help patients have the ability to differentiate the two areas," she says.

The team also followed through on this concept by directing that consistent paint colors be used in doorways and baseboards of the geropsych area.

"We also placed plexiglass boxes on the doorways, where patients could put things that were meaningful to them — pictures of themselves or whatever they want — that shows them where they belong," she says.

Floor design also was important, as these patients tend to wander. "If there is a dramatic change in the color of the floor, they see it as a barrier, so we built that into the design as well," Maund explains.

Lighting aids the visually impaired

In recognition of the fact that many of these patients are visually impaired, lighting is being used that draws people into specific areas. The lighting in bathrooms will be set up in such a way so that even at night, the patients can see where to go. Fluorescent footprints are being placed on the floor between the beds and bathrooms.

"We may even use motion sensors, with low-level light that patients can see but that is not blinding," Maund says.

In the bathrooms themselves, where many falls tend to occur, grab bar placements will go beyond code requirements. "They will also be placed consistently around the rooms and on both sides of the halls," adds Kosnik.

The renovation will be completed before the end of the year, Kosnik says. "The unit itself is not all that different; it's still going to be a

relatively traditional hospital unit, and that's been the big challenge. Interestingly, most of the literature we've been able to find is on building new facilities, yet creating a safer environment in renovation is what most of us face."

Maund says she is convinced the efforts of the committee and subcommittee will yield that safer environment.

"We expect to continue to look at the fall rate, and if the intervention goes as planned, it will be lower," she concludes.

[For more information, contact:

- ***Linda K. Kosnik** RN, MSN, Chief Nursing Officer, Overlook Hospital, 99 Beauvoir Ave., P.O. Box 220, Summit, NJ 07902-0229. Telephone: (908) 522-2095. Fax: (908) 522-4904.*
- ***Tina Maund**, RN, MS, Director of Performance Improvement, Overlook Hospital, 99 Beauvoir Ave., P.O. Box 220, Summit, NJ 07902-0229. Telephone: (908) 522-2000.]* ■

Study shows safety risks for children, value of tool

Algorithms target processes with patient safety

A new study of 3.8 million discharge records for children indicates that these younger patients experienced substantial numbers of potentially preventable patient safety problems during hospital stays in 1997.

This is the first comprehensive examination of the types of patient safety problems that children experience in hospitals, according to the Agency for Healthcare Research and Quality (AHRQ), which funded the study.

The study also helps demonstrate the effectiveness of the Patient Safety Indicators (PSIs) developed by AHRQ to help health care professionals hone in on areas of patient safety concerns.

"Children are just a susceptible as adults [to patient safety problems]," asserts **Marlene R. Miller**, MD, MSc, FAAP, director of quality and safety initiatives at Johns Hopkins Children's Center in Baltimore and lead author of the article, which appeared in the June 6, 2003, *Pediatrics.*

"However, they sometimes fall off the road map. The main point of this study was to try to document that the rate of occurrences was as high as we suspected — and it did. Also, there are some events unique to children, perhaps most notable being birth traumas. This type of data will never percolate unless you concentrate on kids," she points out.

In fact, wrote the authors, "children are subject to unique vulnerabilities that may predispose them to higher rates of in-hospital patient safety events than the adult population. For example, children have a near-universal hospitalization for childbirth, are not able to directly question their own care, and may not have parents or guardians continuously at the bedside to oversee their care.[1]"

Using the PSI algorithms, the researchers found: The prevalence of pediatric patient safety events is significant, with the highest rate found for birth trauma at 1.5 cases per every 100 births. Postoperative infections occurred at 0.44 cases per 100 births, and obstetrical misadventures at 0.27 per 100.

"Compared with records without PSI events, discharges with PSI events had twofold to sixfold longer lengths of stay, twofold to 18-fold higher rates of in-hospital mortality, and twofold to 20-fold higher total charges,"[1] the authors wrote.

The researchers further found that all PSI events, with the exception of birth trauma, were directly associated with factors related to greater severity of illness and large urban teaching institutions.

They concluded that "our results highlight the need for more focused work, particularly patient safety-related, during the critical time period of birth as well as for all hospitalized children."[1]

A valuable tool

The PSI algorithms, a set of administrative database indicators of potential safety events developed by AHRQ, can be a valuable tool for internal quality improvement efforts, Miller says.

"If an institution does not have any reporting mechanism — and this is not that uncommon — this is a quick tool to use," she explains. "You can focus your attention on 300 cases rather than 3 million, and this is really the intention of these indicators."

The PSI indicators include:

- procedure for suture of laceration;
- postoperative infection;
- transfusion reaction;
- foreign body left during procedure;
- infection attributed to procedure;

- iatrogenic conditions;
- wound disruption;
- miscellaneous misadventures;
- obstetrical misadventures;
- birth trauma;
- e-codes (from ICD-9-CM, i.e., "foreign body left in body during procedure," or "failure of sterile precautions during procedure").

The PSIs help streamline the quality improvement process "because they only identify the cases where these patient safety events happen," Miller says.

"If have you have 3,000 births, some number less than that will only have codes for birth trauma. Ideally, the systems related to patient safety that could be changed will be those flagged by the algorithms," she points out.

The authors asserted that their findings support the utility of the PSIs, and that "Given the main intent of the PSIs to serve as an internal institutional screening tool to identify records for scrutiny with respect to patient safety, these results show that the PSIs may be a useful tool to identify a manageable number of records with a high likelihood of containing information pertinent to institutional quality improvement efforts.[1]"

The PSIs are available on the AHRQ web site (www.ahrq.gov). To use the tool, says Miller, you need a computer system and the ability to enter, retrieve, and manipulate your data.

"You need someone with a statistical background — someone with a knowledge of how to do analyses on large databases to run the data. But beyond that, it is fairly self-explanatory," she says.

(For more information, contact:

- ***Marlene R. Miller,** MD, MSc, FAAP, Director of Quality and Safety Initiatives, Johns Hopkins Children's Center, CMSC 2-125, 600 N. Wolfe St., Baltimore, MD 21287. E-mail: mmille21@jhmi.edu.)*

Reference

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HHS, hospital associations team up for patient safety

The U.S. Department of Health and Human Services (HHS), in partnership with the American Hospital Association (AHA) and the American Medical Association (AMA), has announced a campaign to help distribute valuable information about improving patient safety to health care providers and patients across the country.

HHS is working with the AHA and the AMA to promote new posters and fact sheets called *"5 Steps to Safer Health Care."* The posters and fact sheets offer evidence-based, practical tips on the role that patients can play to help improve the safety of the care that they receive.

"Patients have an important part to play in reducing the chance that something unintended may happen when they go to the hospital or doctor's office," HHS Secretary **Tommy Thompson** said announcing the program. "It's really important for people to ask questions if they have any doubts or concerns about their medicines or the treatments they are supposed to receive."

The new posters and fact sheets provide tips that could help patients avoid errors related to prescription medicines, laboratory tests and procedures, and surgery.

The tips were developed through a joint effort of The Agency for Healthcare Research and Quality (AHRQ), HHS' Centers for Medicare & Medicaid Services, the Office of Personnel Management, and the Department of Labor.

The materials, which are available in English and Spanish, emphasize that good communication between health care providers and patients often can reduce a potential source of problems in today's increasingly complex health care system. The tips also are included in the *"Medicare & You"* handbook, which is mailed to about 39 million Medicare households each year.

The AHA and AMA are encouraging hospital leaders and physicians to hang the posters in their waiting rooms and exam rooms to help encourage dialogue between patients and providers about health care safety. The groups also are distributing the posters through mailings and meetings.

[Editor's note: Copies of 5 Steps to Safer Health Care *are available in English at www.ahrq.gov/consumer/5steps. htm; or in Spanish at www.ahrq.gov/consumer/cincorec.htm.*

Copies also are available by calling AHRQ's Publications Clearinghouse at (800) 358-9295 or by sending an e-mail to ahrqpubs@ahrq.gov.] ■