ED NURSING®

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IN THIS ISSUE

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Will your medication mistakes cause adverse outcomes? Stop them early

ED nurses are the ones who catch and report most errors, study says

When you go to the medication room to get an order of morphine, you misread the medication label and mistakenly grab hydromorphone. You catch the error yourself, and no one else is aware of the mix-up. Even if the wrong drug had been given, no adverse event would have been likely to occur. So, would you report this "near miss?"

According to just-published research, your decision may be crucial to the safety of patients in your ED.

"Most of our error reports are valuable not because they caused an adverse event, but because they alert us to a system problem that should be fixed *before* it causes an adverse patient outcome," says **Fidela S.J. Blank**, RN, MN, MBA, research coordinator for the department of emergency medicine at Baystate Medical Center in Springfield, MA.

A September 2003 study reports that 400 errors occurred during 1,935 patient visits at a Massachusetts ED over a one-week period. Staff members were encouraged to report errors when they became aware of them. ED nurses, who reported the highest percentage of any ED personnel, discovered 40% of the errors.[1]

"This is significant," says Blank, one of the study's investigators. "We know we cannot reduce errors to zero. So we need to devise strategies and systems to support nurses and others in error recovery."

A total of seven adverse outcomes resulted from the errors, including a patient

EXECUTIVE SUMMARY

According to new research, the majority of errors are caught and reported by ED nurses.

- Use intravenous pumps to prevent accidental fluid overload in vulnerable patients.
- Place warnings on automated medication dispensers to avoid double and incorrect dosages.
- Consider using a bar-coding system to verify that the correct patient is receiving the correct medication.

who developed blurry vision and pain after being given an incorrect eye medication and a patient who had a seizure after a delay in obtaining an antiepileptic level. According to the study, most of the errors caused by ED nurses were medication mistakes.

According to the Washington, DC-based Institute of Medicine, drug errors in hospitals cause 770,000 injuries and 7,000 deaths each year. In 2002, there were 192,477 medication errors voluntarily reported to the Rockville, MD-based United States Pharmacopeia's database.

According to the report, ED patients were at higher risk for harm from drug errors than other departments, with 3,449 medication mistakes resulting in 676 adverse outcomes, including two deaths.

The most important message for ED nurses is that errors in clinical care should not be hidden, Blank says. "These should be reported so that we can learn from them," she argues.

Unfortunately, many ED nurses are reluctant to report errors, often with good reason, says Blank. "Nurses are worried about being punished for mistakes either through a bad performance evaluation or their license being endangered," she adds. "We must eliminate the 'culture of blame.'"

To reduce errors in your ED, do the following:

• Design systems to catch errors before they occur.

As an ED nurse, you can prevent errors from harming patients by minimizing their impact, says Blank. For example, if a physician writes an incorrect dose of a medication, you can prevent the drug from being administered by questioning the order, she explains.

The study's findings underscored that the ED is a particularly error-prone environment, says Blank. "In a chaotic, fast-paced environment, nurses have to be constantly vigilant to avoid or catch errors before they hurt patients," she says. "The more safety features we can build into our systems, the easier it will be for the ED nurse."

For example, computerized ordering will do away with the problem of illegible handwriting, and an anonymous reporting system can identify unsafe practices, says Blank.

• Implement changes to avoid medication errors.

Drug errors in the study occurred due to the following factors, says Blank:

— the widespread use of verbal orders in the ED setting;

— stocking errors in automated medication dispensers;

— communication problems between nurses, especially between shifts;

— failure to document administration of medications in a timely manner;

— not checking patient identification (ID) bands, not placing ID bands on patient.

"Errors lead to other errors, until it hits the patient," says Blank. "For example, not putting an ID band on a patient is an error, but if a patient is not misidentified because of this, then there is no impact. But if a wrong medication is given because the patient had no ID band, then you might have an adverse event in the making."

The following changes were implemented at Baystate Medical Center's ED to address these problems:

— ID bands are placed on all patients. "Before, some ID bands were left on the chart and not put on the patient," explains Blank.

— Intravenous pumps are used with all vulnerable patients, including pediatric and geriatric patients, to prevent accidental fluid overload.

— Warnings are placed on automated medication dispensers, such as listing the time the last dose of the medication was given to prevent double dosing, or simple warnings such as "give intramuscularly only."

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"We have a long way to go, but at least we have started looking at errors in a systematic way," says Blank.

At University of California-Irvine in Orange, the following strategies have been put into place to reduce medication errors, reports **Darlene Bradley**, RN, MSN, MAOM, CCRN, CEN, director of emergency and trauma services:

— Drugs with similar names, such as cefazolin, cefotaxime, and cefoxitin, are listed with their brand and generic names to avoid confusion.

"Since the names are very similar, there is a greater chance of error," says Bradley. "With the new labeling system, the drug name is identified in two ways, and it is put in a separate pocket from any other drug."

— The policy and procedure for patient identification has been revised.

Now, two forms of identification are required for each patient, such as the patient verbalizing his or her name and matching the order sheet with the patient's ID bracelet. The policy complies with the 2004 National Patient Safety Goals from the Oakbrook Terrace, IL-based Joint Commission on Accreditation of Healthcare Organizations, adds Bradley.

With the new system, if a nurse takes the incorrect medication to the patient's bedside, the drug will not be administered and a potential adverse outcome is avoided, she says.

"It is easy to make errors because we are human and because we are in a hurry," says Bradley. "For example, you may see a name with similar spelling. Or you did see the same name, but the medical record number was different than the person you were looking for?"

If a nurse verifies that the ID bracelet and name match the order sheet but discovers that the medical record or birth date do not match, this could alert nurses to the fact that two patients in the ED have the same name. This concern immediately would be reported to staff, emphasizes Bradley. In this scenario, if the nurse hadn't done a second check, the medication would be administered to the wrong patient, she explains.

"A system correction should occur to help staff identify that there are more than one persons in the department with the same name," says Bradley. "We call this a 'name alert' in our department, which is placed on the chart and on the tracking board for all to see."

— Bar-coding systems are being evaluated.

The ED is trialing several bar-coding systems, reports Bradley. If a medication is going to be administered, the nurse takes the order sheet to the bedside, scans the order sheet, and then scans the patient's bracelet, she explains.

"If the bar codes are the same, the medication can be administered," Bradley says. "If, on the other hand, the bar code on the patient's bracelet is not a match, the nurse then knows she has selected the wrong patient, and the error can be avoided."

— Staff double-check the blood tube from the order transmittal with a second staff member to verify a match in names and medical record number.

"The primary nurse documents the name of the person that drew and sent off the blood," Bradley says. "This allows for more accountability in the care of that patient and allows another verification to take place."

Reference

1. Fordyce J, Blank F, Pekow P, et al. Errors in a busy emergency department. *Ann Emerg Med* 2003; 42:324-333. ■

Do you have strategies to care for obese patients?

EDs report numbers are increasing dramatically

(Editor's note: This is the first of a two-part series on improving care of obese patients in the ED. This month's story addresses special considerations for assessment and supplies. Next month, we'll cover complications of surgical treatment for morbid obesity you may be seeing in your ED.)

Would you be able to manage an airway, start an intravenous (IV) line, or determine accurate medication dosages for a 300-pound patient in your ED?

"We definitely have seen a rise in the number of obese patients in our ED," reports **Stephanie J. Baker**, RN, BSN, CEN, MBA/HCM, director of emergency services

EXECUTIVE SUMMARY

Many EDs are reporting increasing numbers of obese patients, which reflects national trends. To meet the needs of these patients, you'll need new approaches for assessment and equipment.

- For intubation, a bag-valve mask, difficult airway devices, or emergency airway surgical procedures may be needed.
- To obtain intravenous access, ask the patients where they usually have blood drawn, use areas over bony prominences, or consider an external jugular central line.
- Instead of intramuscular needles, use oral or intravenous administration, and assess the need for higher dosages of weight-based medications.

at Paradise Valley Hospital in National City, CA. According to a recent study, the prevalence of adults who are severely obese quadrupled between 1986 and 2000.[1]

To improve care of obese patients in your ED, do the following:

• Be ready to use alternatives to obtain an adequate airway.

Because intubation can be more difficult in obese patients, have a bag-valve mask available at all times, advises Baker. "It may be necessary to have one person bag and one hold the patient in the chin-lift or jaw-thrust position to better open the airway," she says.

In some cases, difficult airway devices or emergency airway surgical procedures may be necessary, adds Baker. "It is imperative to have these supplies and sterile trays readily available in the ED," she says.

• Ensure that IV access is obtained.

Because many obese patients have no visible vein structure, ask patients if they know where they usually have blood drawn, advises Baker. "Obese patients often know what works for them, and this avoids unnecessary sticks," she says.

It may be easier to start IVs in areas over bony prominences with fewer fascias, such as the thumb, wrist, top of foot, or saphenous vein in the medial ankle, advises Baker. Placing a warm towel on the area for a few minutes may produce enough vasodilatation so you can see a vein, she adds.

You may need to consider an external jugular central line, says **Jane Lashock**, RN, BSN, CEN, ED nurse and bariatric nurse coordinator at Greater Hazleton (PA) Health Alliance.

"The clavicle area is generally not an area of large fat distribution, so that can be a plus," she says. "However, external jugular access can be a challenge with the stout neck."

• Make patients comfortable.

Here are three simple ways to increase comfort of obese patients:

— **Provide appropriate linens.** "We use obesity gowns that are much larger and can modestly cover a patient up to 500 pounds," says Baker.

— **Transfer patients to regular inpatient beds.** "This will make your patient much more comfortable, prevent skin breakdown, and allow the patient to have a bed with automatic controls, thus reducing 'back' work for the ED staff," Baker says.

— **Offer patients heavy-duty walkers instead of crutches.** It is difficult for obese patients to balance their weight on the palms of the hands, and this can lead to nerve damage due to distribution of weight on the armpits, advises Lashock. **(See resource box on p. 29 for ordering information.)**

• Address potential problems with medication administration.

There might be unexpected distribution or absorption of intramuscular medications that are stored in fat, says Lashock.

In addition, the average intramuscular needle is 1½ inches in length, which will generally only penetrate to the subcutaneous tissue and not the muscle in the morbidly obese, she says. Consider alternative routes for administering drugs, such as oral or IV, Lashock recommends.

In addition, you may need to administer higher amounts of weight-based medications such as atropine, says Lashock. To address this, consider making a dosage chart for obese patients as with pediatric dosages, she suggests.

• Perform more X-rays at the bedside.

To avoid transporting obese patients, portable chest X-rays are given at the bedside, says Baker. "The pros are quicker results and less patient movement, and the cons are having only one view instead of two," she says.

Obese patients also are given bedside X-rays for extremities, shoulders, flat plate abdomen, and hip and pelvis, says Baker. "Again, you may give up a little in quality or number of views. But it is usually enough for you to determine a disposition or if other studies are indicated," she says.

• Avoid compromising the patient's respiratory status.

If patients are lying down on a backboard, the weight on their diaphragm and chest could be harmful to their respiratory status, says Lashock. "So we have to work quickly at clearing their cervical spine, and tilt the bed up higher while they're still on the board, to help facilitate tidal volume," she advises.

• Assess the need for special equipment.

SOURCES/RESOURCES

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- **Jane Lashock**, RN, BSN, CEN, Bariatric Nurse Coordinator, Greater Hazleton Health Alliance, 668 N. Church St., Suite 104, Hazleton, PA 18201. Phone: (570) 459-5607. Fax: (570) 459-1140. E-mail: janern @ptd.net.
- **The Airpal Patient Transfer system** is used to transfer patients from bed to stretcher to other areas of the hospital and is designed to reduce back injuries, require fewer staff members to transfer patients, and improve patient comfort. ED patients may remain on the transfer pad for all ancillary procedures, including radiology, CT scan, radiation therapy, heart catheterization, physical therapy, labor and delivery, and surgery. Contact Airpal, 5002 Camp Meeting Road, Center Valley, PA 18034. Phone: (800) 633-4725 or (610) 866-5475. Fax: (610) 866-2634. E-mail: weyhill@aol.com. Web: www.airpal.com.
- **Stryker "Big Wheel" for ED gurneys** make it easier to transport obese patients. Separately, the cost is $1,175. The Atlas 660 gurney has a 660-pound weight limit and includes the Big Wheel. The cost is $5,995. Contact Stryker Medical, 6300 S. Sprinkle Road, Kalamazoo, MI 49001-9799. Phone: (800) 787-9537 or (269) 329-2100. Fax: (269) 329-2213. E-mail: jscharff@med. stryker corp.com. Web: www.stryker corp.com.
- **The Large Body Surface (LBS)** is an accessory developed for larger patients to increase cot width to 34 inches. The LBS attaches to 35-P and 93-P ProFLEXX cots. The cost is $995. Contact Ferno, 70 Weil Way, Wilmington, OH 45177. Telephone: (800) 733-3766 or (937) 382-1451. Fax: (937) 382-1191. Web: www.ferno.com.
- **Lift and transport systems for obese patients** include "crane"-type lifts with fabric slings to put under the patient that then attach to the lift device. Disposable fabric covers are provided. Contact Arjo, 50 N. Gary Ave., Roselle, IL 60172. Phone: (800) 323-1245 or (630) 307-2756. Fax: (888) 594-2756. Web: www.ARJO.com.
- **An Extra Wide Walker** can support up to 400 pounds, and the crossbar will not interfere with the patient's stride. It also can be used as an over-the-toilet support. The cost is $114.80 plus $13.95 for ground shipping. Contact WisdomKing.com, Customer Service, 2410 Cades Way, Unit B, Vista, CA 92081. Phone: (877) 931-9693 or (760) 727-6471. Fax: (760) 727-6479. Web: www.wisdomking.com.

Do a self-assessment of your ED's equipment, such as stretchers, backboards, and cervical collars, to ensure the safety of obese patients, Lashock recommends.

"If chairs have a weight limit of 250 pounds, and a 600-pound person breaks the chair and injures himself, the hospital is liable," she warns.

Paradise Valley's ED recently purchased six wider gurneys with stronger side rails, thicker mattresses, and an extra wheel for stability for approximately $3,000 apiece, says Baker. **(See resource box, left, listing equipment designed for obese patients.)**

When evaluating equipment, consider the width as well as the weight it will accommodate, advises Lashock. For example, the average width of a backboard is approximately 18 inches, with a weight capacity of 350 pounds. "I saw one backboard that can supposedly hold 1,000 pounds, but the width was still no better," she notes.

Reference

1. Sturm R. Increases in clinically severe obesity in the United States, 1986-2000. *Arch Intern Med* 2003; 163:2,146-2,148. ■

Joint Commission UPDATE

Surveyors will ask nurses to describe patient care

You won't know exactly when to expect surveyors

As an ED nurse, you can expect dramatic changes during your next survey from the Oakbrook Terrace, IL-based Joint Commission on Accreditation of Healthcare Organizations, as a result of the new "Shared Visions, New Pathways" process and emphasis on continuous readiness.

"This is a very hot topic in our ED, as we are due for survey in January 2004," says **Kelly Arashin**, RN, CEN, night charge nurse and trauma coordinator for the ED at Hilton Head (SC) Regional Medical Center.

In the past, EDs knew exactly when to expect surveyors, but that's no longer the case, notes Arashin. "We have been told that Joint Commission will be coming unannounced, so this survey may take place on weekends and nights," she reports. "No one is safe anymore. Everyone must be ready for the surveyors, no matter the shift."

As of this month, surveys will include the new patient tracer methodology. Surveyors will trace a patient throughout the hospital to ensure consistent

EXECUTIVE SUMMARY

Effective for 2004 surveys, the new patient tracer methodology of the Joint Commission on Accreditation of Healthcare Organizations will have a major impact on ED nurses.

- You'll need to describe patient care processes to surveyors.
- Surveyors will want to see that your daily practice is consistent with written policies.
- Mock surveys are an effective way to identify problem areas and educate staff.

care is being given, and this change will bring surveyors directly to ED nurses in many cases. Beginning in 2006, all surveys will be unannounced.

"It is certainly a huge improvement over the 'clean-the-house-for-the-mother-in-law' mindset that has always surrounded Joint Commission visits," says **Elaine C. Keavney**, RN, MSN, CEN, ED educator at Good Samaritan Hospital in Puyallup, WA. "In the past, everyone tried to remember exactly what the surveyors might ask, like cramming for a test, and then forgot everything when they walked out of the room."

How to prepare for new surveys

To prepare for the new survey process, do the following:

• Give staff mock surveys.

At Good Samaritan's ED, mock surveys are done in the ED twice monthly to ensure continuous readiness.

"At first, ED nurses were not terribly receptive to the surveyors and the process," Keavney acknowledges. "But after several weeks, they have become accustomed to the process and are receiving it more willingly."

Recent areas of focus have included patient safety, infection control issues, and patient privacy, she says.

At staff meetings at Hilton Head Medical Center's ED, nurses routinely are asked potential surveyor questions such as, "Where do you keep your protective equipment for hazardous material situations?" "How do you handle narcotic discrepancies?" and "Who do you notify in an event?"

"These are types of questions that we are asking ourselves and co-workers to help us prepare for the real thing," says Arashin.

• Ensure that all nurses understand the new patient tracer methodology.

At St. Joseph Hospital in Orange, CA, a mock survey using the tracer methodology revealed a lack of understanding about the new process, says **Denise King**, RN, MSN, CEN, nurse manager of the ED.

"It quickly became apparent that we definitely have some challenges before us," says King. Frequent mini-mock surveys using the tracer methodology are planned, she adds.

The mock surveyor traced patients from the intensive care and medical/surgical units who were admitted through the ED, and interacted with nurses to discuss the care of the patient while in the ED.

"The challenge here is that they ended up talking with a nurse who did not care for the patient," says King. "So the nurse they interviewed spoke to their daily practice, which was not always in alignment with the daily practice of the nurse who cared for the patient."

Surveyors will look for consistent responses from staff about patient care processes, she stresses. "In the past, we would often try to direct the surveyor to the 'best' ED nurse on staff to get their questions answered," says King.

With the new tracer methodology, this process no longer will be possible, as surveyors will be coming to the ED at unscheduled times and will expect consistent answers from any ED staff nurse who happens to be present at that time, she notes.

The mock surveyors questioned ED staff nurses on pain management, calling of report prior to transfer, administration of medication at triage, and documentation for all of these, says King. "It was amazing to me how glaring the variation in practice from one nurse to

SOURCES

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the next, or from nurse to policy/procedure, can be, especially when a surveyor is inquiring," she says.

During the mock surveys, some of the areas in which practice and policy weren't consistent included include documentation of pain reassessments, vital signs, and report being given, King reports. For example, nurses medicated a patient three times in the ED for pain but only reassessed pain after two of the three medication administrations, she explains. Also, nurses were 30 minutes late in checking the vital signs of a patient that was supposed to be reassessed every two hours, King says.

The ED uses checkboxes for nurses to indicate when they called report, to whom, and who received the patient, says King. "This area was not completed on the ED record for one of the patients who was admitted, which led to questions about our process for admitting patients and documentation," she adds.

You must closely review your ED's written policies to be sure they are aligned with the daily practices of the staff, says King. "Have the staff as involved as possible in the writing and review of department policies," she recommends. "This way you can make sure that you are writing a policy that is based on current practice and that the staff are aware of the policy content." ■

Do you provide good care in dental emergencies?

While working in the ED one night, a nurse noticed a strange feeling around her left cheek.

"It was not painful and felt somewhat like a vibration or a twitch," recalls **Victoria Leavitt**, RN, CEN, regional nurse educator for emergency services at Franciscan Health System in Tacoma, WA. "I thought nothing of it, finished my shift, and went home."

She was awakened out of a sound sleep at 4 a.m. by an excruciating pain in the same area. "I drove myself to the ED, as I could not stand the pain. Thank goodness the staff knew me. They gave me immediate attention and medication for pain," she says.

There was no obvious cause for the severe pain Leavitt was experiencing. "There was even some joking about drug seeking," she says. "It turned out I had sustained a linear fracture of a tooth only visible on X-ray, and the tooth was not salvageable."

The incident underscores the tendency to view dental complaints as trivial in the ED, notes Leavitt. "EDs are rather primitive when it comes to dental pain, our approach to the dental patient, and the on-hand dental equipment that we have," she says.

According to new data from the National Hospital Ambulatory Medical Care Survey, conducted by the Hyattsville, MD-based National Center for Health Statistics, EDs treated nearly 3 million patients with complaints of tooth pain or tooth injury between 1997 and 2000, for an average of 738,000 visits annually.[1]

EDs may be the only place many patients, particularly individuals who lack private insurance, can go for dental-related complaints, says **Charlotte Lewis**, MD, MPH, the study's principal investigator and assistant professor of pediatrics at the University of Washington in Seattle. As an ED nurse, you must be able to triage, diagnose, treat, and ensure appropriate follow-up care for all types of dental problems, she adds.

"There is great potential for nurses to make an important impact on oral health-related prevention and problems," adds Lewis. To improve care of dental emergencies, do the following:

• Assess patients for life-threatening injuries.

"Some dental emergencies may be life-threatening if left unchecked," warns Leavitt.

While assessing a nursing home resident who was sent to the ED for decreased level of consciousness and fever, Leavitt felt that something was being overlooked. "I knew that the way she was holding her mouth did not seem right, but I could not put my finger on it," she says.

Since there was no pronounced swelling, Leavitt and the ED physician proceeded with the usual septic work-up. "But that mouth position bothered me, so I put on some gloves and started examining her mouth," she says. "It took one feel of the floor of her mouth to find a massive 'woody' swelling."

The woman later died of septic shock because of unrecognized Ludwig's angina, says Leavitt. This is an inflammation and infection of the submandibular and

EXECUTIVE SUMMARY

EDs are treating significant numbers of patients with dental emergencies, but pain management and treatment often is inadequate.

- Life-threatening emergencies include Ludwig's angina, which threatens a patient's airway, dental abscesses that extend into the mediastinum, and odontogenic infections.
- If a trauma patient presents with fractures of the posterior teeth, you should suspect an associated cervical spine injury.
- Provide appropriate assessment and treatment for dental pain, which frequently is undermanaged in the ED.

SOURCES/RESOURCES

For more information on treating dental emergencies, contact:

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- **Charlotte Lewis**, MD, MPH, University of Washington, Box 354920, Seattle WA 98195. Telephone: (206) 616-1205. Fax: (206) 616-4623. E-mail: clewis19@u.washington.edu.

The Dental Box kit for treating dental emergencies in the ED contains laminated reference cards and supplies to treat avulsed, fractured or subluxed teeth, loose fillings, crowns or bridges, odontalgia, alveolar osteitis, and lacerated, bleeding, or abraded mucosa. The cost is $410 plus $20 shipping. To order, contact:

- **The Dental Box Co.**, P.O. Box 101430, Pittsburgh, PA 15237. Telephone: (412) 364-8712. Fax: (412) 364-8712. E-mail: dentalbox@aol.com. Web: www.dentalbox.net.

sublingual space that usually develops as a result of a dental abscess, she explains.

"This represents a serious threat to the patient's airway," says Leavitt. "The floor of the mouth may become hugely swollen, and in later stages, has a hard, almost woody feel."

Dental abscesses may extend to the deep facial planes of the neck and even into the mediastinum, notes Leavitt. "Though rare, this is most assuredly life-threatening," she says.

Odontogenic infections that spread into the fascial layers of the face and neck can obstruct the airway, says Lewis. "We have had a child die that became septic from an odontogenic infection," she says.

If you observe fractures of the posterior teeth related to an injury, this suggests an associated cervical spine injury, so you should consider implementing appropriate precautions, adds Lewis.

• Ensure appropriate pain management.

Dental pain is chronically undermedicated in the ED, according to Leavitt.

"Presentations to triage with a complaint of dental pain are often met with less than compassionate concern," she says. "Barring an obvious abscess or trauma, there may be a presumption of drug-seeking behavior."

Manage dental pain as you would any other painful condition, advises Leavitt. "If dental and oral pain were to be taken as seriously as a fractured arm, the initial assessment and ongoing care would be elevated to a level not seen in most EDs today," she says.

• Provide resources for follow-up care.

Do what you can to help patients identify other sources of dental care, urges Lewis.

"Access to dental care for low-income and/or uninsured adults is terrible," she says. "This is often why people come to the ED — because they do not have any other place to go."

Develop an ED task force to identify community dental resources and develop educational materials and referral sheets, suggests Lewis. If you do develop a referral sheet, make sure that it stays updated, or it will be useless, she adds.

"We need to be careful to avoid giving a list of dentists with no sense of whether they are accepting new patients, have a sliding payment scale, or what their waiting list is like," she adds. "Once you look into this, you get a sense of how dire the situation is."

Reference

1. Lewis C, Lynch H, Johnston B. Dental complaints in emergency departments: A national perspective. *Ann Emerg Med*. 2003; 42: 93-99. ■

COST-SAVING TIP

You can save thousands by auditing patient charts

Over a year, how would you like to add $9,863 to your ED's bottom line by catching missed charges for supplies or wrong acuity levels? **Virginia R. Keusch**, RN, clinical manager of the emergency and cardiopulmonary departments at Mecosta County General Hospital in Big Rapids, MI, accomplished this with two ED nurses by auditing about 10% of patient charts, or about six daily.

"We are usually looking at different things; they look for missed charges, and I look for reimbursement and coding issues," she explains.

For example, a nurse may document that a splint was used but forget to note that an elastic bandage was used to secure it, she explains. Recently, when a critical

SOURCE

For more information on auditing charts, contact:
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patient's chart was reviewed for accuracy, Keusch found that missed items amounted to more than $300.

If problems with documentation are identified, this information is shared with individual nurses via one-on-one reminders. "We stay away from 'blanket' memos or statements," she says. "I believe they do more to demean the people who are not having issues than to help the one that has made an oversight."

If a nurse is making a large number of documentation errors, the following steps are taken:

• The nurse is given a timeline to improve.

• The nurse is told the amount of lost revenue due to errors.

"Often, just bringing that to their attention is all they need," says Keusch. "For a nurse who feels they are too busy to pay attention to billing, I have equated the loss to nurse wages to show that if we are accurate, we could afford to have X amount of extra staff."

• Obstacles are identified.

If a nurse is making repeated documentation errors, the process is examined. "We make sure we don't have some odd work-around that is making an obstacle for that employee," says Keusch. "Often, we are able to make a change in a form that makes it clearer."

For example, nurses often forgot to charge for the supplies used for an intravenous (IV) start, so the process was changed. "We are planning to use more 'explosion' charges where the staff mark the IV start. Then, behind the scenes in the billing module, it explodes out to include supplies such as wound dressings and tape," she says. "This eases up on nurse time in hunting down charges."

The most frequent inaccuracy is charging a casting charge when actually the procedure was splinting, which is roughly a $140 difference. To address this, the terminology on the charge sheet was changed from "cast" to "practitioner-applied cast" to make it less likely that nurses will check this box, since nurses don't apply casts, explains Keusch.

Auditing also can pinpoint overcharges, such as an item nurses intended to use but didn't, such as pacer pads, says Keusch. "If we can't find an order or documentation that they used the item, we adjust the bill," she says.

[Editor's note: Do you have a cost-cutting tip to share with ED Nursing *readers? If so, please contact Staci Kusterbeck, Editor,* ED Nursing, *280 Nassau Road, Huntington, NY 11743. Telephone: (631) 425-9760. Fax: (631) 271-1603. E-mail: StaciKusterbeck@aol.com.]* ■

Use '3-man' technique for catheter urinalysis

Here's an easier way to obtain a catheter urinalysis on pediatric females when you need a very clean urine specimen, such as for a septic work-up on a small child, or you need to rule out a urinary tract infection.

"It's a three-man procedure, but well worth the personnel because it's quick and relatively nontraumatic," says **Teri Howick**, RN, nurse educator for the ED at McKay Dee Hospital in Ogden, UT.

The first person, who can be the parent or caregiver, if he or she is willing, stands at the head, reaches over the patient and holds the legs bent in a frog leg position, she explains. "This is best accomplished by grasping the leg just below the knee, and flexing the leg so it is bent and slightly spread laterally," says Howick.

The second person stands below the patient, and with gloved hands, gently grasps each labia majora with a dry 2x2, then slightly pulls them *out* — not to the side, she instructs.

"Pulling to the side, which seems like the most logical thing to do, puts undo tension on the fragile tissue of the perineum and actually can tear it," says Howick. "The labia should be pulled toward the foot of the bed. By this simple maneuver, you will be amazed at how the anatomy just falls into place, like opening a curtain."

The vaginal opening as well as the elusive urinary meatus are easily visualized in normal anatomy, says Howick. The third person does a quick cleaning, and with a small catheter, takes care to aim toward the small of the back — downward and at a 45-degree

angle or more, instead of straight in as you would an adult female, she explains. "I have had overwhelming success with this technique," says Howick.

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JOURNAL REVIEWS

Wright ER, Linde B, Rau L, et al. **The effect of organizational climate on the clinical care of patients with mental health problems**. *J Emerg Nurs* 2003; 29:314-321.

ED nurses who feel their working conditions are positive have more frequent contact and provide a greater variety of interventions to psychiatric patients, says this study from Indiana University-Purdue University Indianapolis.

The researchers surveyed 109 emergency nurses and other clinical staff in a midwestern ED about their organizational climate, including job satisfaction, growth and advancement, and role ambiguity and conflict. The study found that respondents had more empathy and more clinical interaction with mental health patients if they felt their work environment was fair and equitable.

"Both this study and our ethnographic observations of the same facility suggest that negative attitudes are quite prominent among ED staff," wrote the researchers. "Our findings, however, suggest that improving the work climates may improve the quality of care that emergency nurses and others provide to psychiatric patients in an emergency department." ▼

Palchak MJ, Holmes JF, Vance CW, et al. **A decision rule for identifying children at low risk for brain injuries after blunt head trauma.** *Ann Emerg Med* 2003; 42:492-506.

Children at low risk for traumatic brain injuries after blunt head trauma can be identified by assessing for clinical symptoms including the absence of abnormal mental status, clinical signs of skull fracture, a history of vomiting, scalp hematoma in children ages 2 and younger, and headache, says this study from University-Davis (CA) School of Medicine and Oregon Health Sciences University in Portland.

Researchers studied 2,043 children with blunt head trauma who presented at a pediatric ED of a Level I trauma center from 1998 to 2001. Children with the above symptoms constituted 99% of children with traumatic brain injuries on computed tomography (CT) scan. Of the 304 children who had CT scans with none of these symptoms, only one had traumatic brain injury on CT, and the patient was discharged from the ED without complications. The researchers note that although CT scan is routinely used to assess children with head trauma, fewer than 10% of these CT scans diagnose traumatic brain injuries. They hypothesized that a set of clinical signs and symptoms accurately can identify children at very low risk. A clinical decision tree, using the above clinical symptoms, was developed to identify children without traumatic brain injuries after blunt head trauma.

"Use of this rule may decrease CT use in patients without an appreciable risk of traumatic brain injury," they wrote. ■

Does your disaster plan meet needs of ED nurses?

Do you expect that nurses will come straight to the ED in the event of a major disaster, regardless of their personal needs? Not according to the findings of one new study.

Researchers from Columbia University's Mailman School of Public Health, in conjunction with the Greater New York Hospital Association, both based in New York City, surveyed 5,816 New York health care workers about their willingness to return to work in the event of disasters such as an explosion with mass casualties or a chemical attack. Most of the respondents stated that personal priorities, such as childcare, caring for elderly family members, and pet care, would be their first concern.

This emphasizes the importance of realistic planning, says **Mary Casey-Lockyer**, RN, BSN, CCRN, emergency response coordinator at Northwest Community Healthcare in Arlington Heights, IL. To meet the personal needs of ED nurses in your disaster plan, do the following:

• Be realistic about how many ED nurses actually would report if called back to work for a mass-casualty event.

SOURCE/RESOURCE

For more information about meeting employee needs in your disaster plan, contact:

- **Mary Casey-Lockyer**, RN, BSN, CCRN, Emergency Response Coordinator, Northwest Community Healthcare, 800 W. Central Road, Arlington Heights, IL 60005. Telephone: (847) 618-4665. Fax: (847) 618-5259. E-mail: mcasey-loc@nch.org.

Your Family Disaster Plan is a four-page color brochure published by the American Red Cross addressing disaster safety. Printed copies are available in packages of 25 for a nominal fee plus shipping costs. Ask for number A4466 for the English version or A4466S for the Spanish version. To order, contact your local American Red Cross chapter. Or the brochure can be accessed on-line at no cost in Chinese, English, Korean, Spanish, and Tagalog. Go to www.redcross.org. Click on "Publications," "Community Disaster Education Materials," "General Disaster Preparedness," "Family Disaster Preparedness."

If you anticipate that a low number of nurses will report, you will be better prepared in the event of a disaster, says Casey-Lockyer. "Many of our staff have multiple places of employment and family commitments that would override our directions to return to work," she says. "However, the more we realize these forces are at work, the better we can mitigate these factors."

You can expand child care

• Consider creating a child/elder/pet care center.

ED nurses should be surveyed to assess the need for this, or it may be that the capacity of these areas needs to be increased at your facility, says Casey-Lockyer. Northwest Community's disaster plan states that the campus wellness center and staff will be used to expand the existing child care area to accommodate family members of staff called to return to work in the event of a disaster, she notes.

• Encourage ED nurses to create a family disaster plan.

All ED nurses are given a family disaster-planning handbook, developed internally, and this handbook is given to new nurses at orientation, says Casey-Lockyer. **(To obtain family disaster planning materials, see resource box, left.)**

For example, the handbook recommends that a trusted neighbor be authorized to care for children, elders, and/or pets, which could enable ED nurses to return to work.

"This is the recommended approach, as many staff may not want to bring family members to work if an infectious agent was the cause of the disaster," says Casey-Lockyer. "Biannually, leadership is encouraged to remind their staff to update these family disaster plans." ■

CE instructions

Nurses participate in this continuing education program by reading the article, using the provided references for further research, and studying the questions at the end of the article. 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 semester's activity with the June issue, you must complete the evaluation form provided in that issue 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. ■

COMING IN FUTURE MONTHS

- ■ Improve care of elderly trauma patients
- ■ New guidelines for children with fever
- ■ Manage complications of gastric procedures
- ■ New interventions for myocardial infarction

CE objectives

After reading this issue of *ED Nursing*, the CE participant should be able to:

1. Identify clinical, regulatory, or social issues relating to ED nursing. (See *Will your medication mistakes cause adverse outcomes? Stop them early* and *Surveyors will ask nurses to describe patient care* in this issue.)
2. Describe how those issues affect nursing service delivery. (See *Do you have strategies to care for obese patients?)*
3. Cite practical solutions to problems and integrate information into the ED nurse's daily practices, according to advice from nationally recognized experts. (See *Do you provide good care in dental emergencies?)* ■

CE*questions*

1. Which of the following is recommended to prevent medication errors in the ED, according to Fidela S.J. Blank, RN, MN, MBA, research coordinator for the department of emergency medicine at Baystate Medical Center?
   A. Reporting errors only if patients are directly impacted.
   B. Placing identification bands on the patient's chart.
   C. Listing drugs with generic names only.
   D. Listing warnings on automated medication dispensers to prevent double dosing.

2. Which is an effective way to improve care of obese patients in the ED, according to Stephanie J. Baker, RN, BSN, CEN, MBA/HCM, director of emergency services at Paradise Valley Hospital?
   A. Have a bag-valve mask available during intubation.
   B. Use intramuscular needles to administer medications.
   C. Use standard adult dosages for all medications.
   D. Avoid bedside X-rays.

3. Which of the following is accurate regarding care of patients with dental emergencies, according to Victoria Leavitt, RN, regional nurse educator for emergency services at Franciscan Health System?
   A. Pain management is only necessary for dental pain resulting from trauma.
   B. Severe dental pain does not constitute a true emergency.
   C. Odontogenic infections are not life-threatening.
   D. Dental abscesses that extend into the mediastinum are life-threatening.

4. Which is accurate regarding the new patient tracer methodology survey process from the Joint Commission on Accreditation of Healthcare Organizations?
   A. Surveyors will direct questions only to nurses who cared for the specific patient being traced.
   B. Surveyors will want to see that daily practice is consistent with written procedures.
   C. Surveyor visits to the ED will be scheduled for specific times.
   D. ED nurse managers will have the option of answering all surveyor questions instead of staff nurses.

Answers: 1-D; 2-A; 3-D; 4-B