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IN THIS ISSUE

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ED nurses seeing increasing numbers of obese patients: Don't put them at risk

Many EDs are not prepared for these patients

A woman reports abdominal pain after a motor vehicle collision, so a computed tomography (CT) scan is needed to determine if a liver or spleen laceration exists. It's pretty straightforward — except that the patient weighs 450 pounds. Since the maximum weight your CT scanner can hold is 350 pounds, the patient has to be transferred to another hospital, which means risky delays.

A man's knee needs immobilization, but the usual sized splints are too small for this 500-pound patient, so he is placed in an ill-fitting splint or none at all, which results in pain and risk of further injury.

These are common occurrences in EDs, as the numbers of morbidly obese patients continue to rise. "The numbers are increasing, along with the actual weights of the patients," says **Mindi Huckabee**, RN, CEN, director of emergency services at Trident Medical Center in Charleston, SC.

Cindy Rentsch, RN, MSN, CCRN, CEN, clinical educator of emergency services at Edward Hospital in Naperville, IL, says, "Unfortunately, we are increasingly seeing patients in the 400- to 600-pound range — two within the last month."

These patients need special equipment and interventions, says **Pamela S. Rowse-Schmidt**, RN, quality/risk consultant and former ED nurse manager at St. Rose Dominican Hospitals in Henderson, NV. "Many EDs are not prepared to handle these cases," she says. "We have to be ready for the issues that accompany these patients."

EXECUTIVE SUMMARY

You need special equipment to care for obese patients, including extra-wide wheelchairs and stretchers with higher weight limits, and different interventions are needed.

- Use weight-based dosages for heparin and narcotics.
- When giving intramuscular injections, press down on subcutaneous tissue and choose sites with less adipose tissue.
- Use ultrasonography to obtain intravenous access if necessary.

Even something as simple as not having the correct sized blood pressure cuff can be dangerous, warns Rowse-Schmidt. "We all know how critical an accurate blood pressure can be related to clinical intervention," she says. For example, if the blood pressure reading is higher than it actually is, the patient may be given an antihypertensive drug to prevent stroke. "If we continue to monitor the patient with the same equipment giving erroneous readings and titrating the medications based on those readings the patient could drop their hemodynamic perfusion so significantly that an untoward outcome could be the result," says Rowse-Schmidt.

New guidelines call for revamping of care of obese patients in the ED were published in the Chicago-based American Society for Healthcare Risk Management's *Journal of Healthcare Risk Management*.[1] Here are several recommendations with tips for compliance:

• Assess equipment for weight limit, width, and length.

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The equipment that needs to be assessed includes gurneys, side rail supports, gowns, blood pressure cuffs, wheelchairs, scales, walkers, wall-mounted grab bars, crutches, extension tubing for Foley catheters, and restraints, according to the guidelines.

However, buying the appropriate equipment may be cost-prohibitive for smaller departments, says Rowse-Schmidt.

Trident's ED stretchers, manufactured by Stryker in Kalamazoo, MI, have a weight limit of 375 pounds. "All of our equipment has been evaluated for use with obese patients," says Huckabee. "We also purchased wide wheelchairs for transport of these patients to and from radiology."

At St. Vincent Hospital in Green Bay, WI, the ED purchased two bariatric stretchers for $4,500, and two extra-wide chairs for the triage area at $250 each, all from Stryker, says **Jennifer Gerdmann**, RN, BSN, director of emergency and trauma services. "We also have adjusted some of our waiting room chairs by taking the arm rests off," she adds.

If you lack the right equipment, patients could be injured when being transferred into or out of a bed, says Rentsch. "A fall would be devastating, in that it is difficult to lift these patients from the floor as well as the injuries they could sustain from the fall," she says.

Creative solutions may be needed when all else fails, says Rentsch. "The other day, our engineering staff had to construct an apparatus for transferring a patient from the cart to a bed," she says. Another problem occurred when bariatric chairs purchased by the ED couldn't fit through the doorways of diagnostic testing areas, adds Rentsch. "We are now in the process of examining these doorways for renovation," she says.

When an ambulance brought a 750-pound patient with shortness of breath to University Medical Center's ED in Las Vegas, where Rowse-Schmidt was charge nurse, regular hospital gurneys couldn't be used because they could hold only 300 pounds. ED nurses found a solution by unloading the patient directly onto a hospital bed and rolling him into the ED, reports Rowse-Schmidt.

• Switch to weight-based protocols.

St. Vincent's ED now uses weight-based protocols for heparin because the dosages are more accurate, says Gerdmann. "Thin patients were getting too much and obese patients were getting too little," she says. Weight-based protocols also are used for narcotics, because patients with a higher body weights need higher doses to be effective, says Gerdmann. "Receiving 2 mg of morphine affects a 100-pound patient much differently than a 200-pound patient," she says. "Typically, the higher the weight, the more medication needed to be therapeutic."

• Choose the location for intramuscular injections carefully, and compress the fatty subcutaneous layer

SOURCES

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with one hand using a 1.5 inch needle.

"Nurses tend to forget that what is appropriate normally isn't going to be appropriate for our obese patients," says Rowse-Schmidt. "You have to press down if you have a large volume of subcutaneous fat, but nurses have been trained to pinch up."

Select an area covered by lower levels of adipose tissue, says Rowse-Schmidt. "Thighs are generally going to be a difficult location. However, at the point of the deltoid muscle, there may be closer access to the muscle itself," she notes.

The selection also will depend on what medication is being administered, says Rowse-Schmidt. "A million units of [penicillin G benzathine suspension] isn't going to go well with a deltoid location because of the volume and the viscosity of the drug itself," she says.

• Have an airway management plan.

"It doesn't take an extremely obese patient to create a set of circumstances where airway management is difficult, if not impossible," says Rowse-Schmidt. "The ED nurse needs to be prepared for the 'what ifs.'" For this reason, you should have "rescue" alternative airway devices readily available, she adds.

At Trident, "we utilize an airway management cart that includes devices for difficult intubations," says Huckabee. The cart contains laryngeal mask airways, fiberoptic scopes, and endotracheal tubes in larger sizes.

• You may need to assist vascular access with ultrasonography.

In the ED, obtaining intravenous access is essential to the delivery of emergent care, says Rowse-Schmidt. "You can lose the battle for patient resuscitation by the lack of an IV, and you don't have the time to wait for the radiology tech to come place a PICC [peripherally inserted central catheter] line," she says.

At St. Vincent's ED, after nurses were unable to obtain peripheral access on a critically ill obese patient, the physician attempted to obtain a central line instead, but was unable to access the vein, so medications were given down the endotracheal tube, says Gerdmann.

To address this problem, a vascular probe attachment was purchased for the ED's ultrasound machine, she says. "We have able to successfully insert central lines in patients when we are prevented from using the usual anatomical landmarks," Gerdmann says.

• Ask the patient, "What works for you?"

The primary job of the nurse is to keep patients safe, Huckabee says. For example, ask the patient the best way to help them get off a stretcher, she says. "This is a difficult task for obese patients," Huckabee says. "For an obese patient trying to ambulate, ask the patient what works best for them to avoid any falls or injuries."

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New tool is coming for neuro assessments

ED nurses often need to perform neurological assessments and may soon have a new tool to perform this task. Researchers at the Mayo Clinic in Rochester, MN, have created an assessment tool to assess neurological conditions called FOUR (Full Outline of UnResponsiveness) Score, which could replace the widely used Glasgow Coma Scale (GCS).

The score consists of four components — eye, motor, brainstem, and respiration — and each component has a maximum score of 4.

The FOUR score had a 20% higher predictive value for patients at risk for higher mortality for poor outcome

EXECUTIVE SUMMARY

The Full Outline of UnResponsiveness (FOUR) score is an effective tool to assess a patient's neurological status in the ED and could potentially replace the Glasgow Coma Score.

- The score can test brainstem reflexes.
- Patients who are locked in or meet criteria for brain death are identified.
- The need for intubation and hernation can be determined more quickly.

than the GCS, according to a recent study's findings.[1] The GCS fails to assess the verbal score in intubated patients and isn't able to test brainstem reflexes, note the study's authors.

"This score could replace the GCS. It is easy to learn, has very good inter-rater reliability, and provides a more accurate picture of the patient's status," says **Lauren Brandt**, RN, MSN, CNS, director of neurosciences for the Brain & Spine Center at Brackenridge Hospital in Austin, TX. "Another benefit is it can identify patients who are locked in or who meet some of the criteria for brain death."

What FOUR score offers

The FOUR score addresses the shortcomings of the GCS, says Brandt. Many of the patients who are comatose in the ED are intubated, she says. "This negates one-third of the GCS: the verbal section," Brandt says. "In addition, the FOUR score gives information on brainstem activity, respiratory pattern, and whether the patient may be locked in."

This additional information could give you more insight into the need for intubation and possible herniation, says Brandt.

ED nurses and physicians always had the sophistication to test patients in a more detailed way, says **Eelco F.M. Wijdicks**, MD, the study's principal investigator. "The GCS inventors assumed it was not possible to test brainstem reflexes and other important elements of the coma examination," he says. "We proved them wrong."

As a result, ED nurses get more information about the patient's neurological state, says Wijdicks. "More information impacts on care," he says. "The nurse will be aware of the need for ICP [intracranial pressure] management or possible neurosurgical intervention sooner."

SOURCES

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Unannounced surveys: What JCAHO asks ED nurses

Surveyors from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) were in the ED many times during a three-day survey at Franciscan Skemp Healthcare in Lacrosse, WI, reports **Barbara Sue McBride**, RN, patient care director of the ED. The ED was one of the first to be surveyed under the Joint Commission's new unannounced survey process.

"There is no such thing as having the department spic and span for an unannounced visit," says McBride, who points out that surveyors may enter the ED several times during the course of an announced survey. "They did not want to talk to management, so I wasn't even aware they were in the department until after the visit."

Here are some questions asked of ED nurses:

• What is your process for obtaining a list of the patient's current medications?

During one patient tracer, surveyors compared an inpatient chart with the ED record and initially thought a medication list was incomplete. "They determined that these were new medications since admission, but then the surveyor asked the nurse to describe how we go about obtaining medication history," says McBride.

The nurse explained that the patient is asked for a

EXECUTIVE SUMMARY

Accreditation surveyors are asking ED nurses about medication reconciliation, patient assessment, and medication safety.

- Surveyors want to know that narcotics aren't being diverted.
- Surveyors express concern about drugs being stocked in several dosages.
- Nurses are asked about processes for non-English-speaking patients.

medication list or pill bottles, and this information is combined with the hospital record to check for discrepancies. "If none of this is available, we contact the pharmacy where the patient obtains medications," says McBride. "We also have clinic visit notes online, so these can be checked."

• If a patient came in and didn't speak English, how would you get a list of current medications?

ED nurses told surveyors that the same process for medication reconciliation would be used, but an interpreter service would be utilized with information verified by the patient, says McBride.

• What is the process for patient assessment?

"Our ED record is rather unique," says McBride. Besides the usual triage information, a general secondary assessment is obtained for every patient including fall risk, mental status, general appearance, activity, skin parameters, abuse, and nutrition screens, she explains. "Once placed in a room, a further focused secondary assessment is completed based on the presenting complaint," she says. "For instance, if they come in with abdominal pain, the pain assessment as well as the gastrointestinal/genitourinary/reproductive assessment portion is completed."

• What have you done in the last few months to increase patient satisfaction?

ED nurses explained that staffing patterns were evaluated, and additional nurses had been added for 11 a.m. to 3 p.m. weekdays and 11 a.m. to 11 p.m. weekends. "The nurse told the surveyors that during these busier times, patients get more prompt attention," says McBride.

• How do you ensure that lab tubes are not outdated?

LuAnne Kratt, ED nurse and sexual assault nurse examiner (SANE) coordinator, showed the surveyor the expiration date on the tubes and also told her that a patient care technician is responsible for keeping supplies in date.

• How do you know narcotics were not diverted for other use?

When Kratt told the surveyor that the drugs were replaced from the automated medication dispenser to the paramedics, he then asked how she knew that the medications actually were given. "I told him that I didn't, but that we were all professionals and had to believe them," recalls Kratt. "It's the same as trusting my peers to give narcotics when caring for patients on the unit."

The surveyor accepted this response, although he may have been looking for a fail-safe program to ensure that narcotics have not been diverted in the field, she says.

"We discussed how to assess the patient's pain level and the relief he or she is receiving," says Kratt. "This is often difficult in a trauma situation or with an altered level of consciousness."

• Why do you stock three different strengths of epinephrine?

The surveyor was concerned that these different strengths could result in medication errors with incorrect dosages given, says Kratt. Kratt informed her of their Code Blue committee that meets monthly to develop policies and procedures and address concerns with the code carts. "I told her I would share her concern with our ED's representative to that committee," she says.

• How do you provide support for domestic abuse victims?

Surveyors were impressed with the ED's domestic abuse program, which includes on-call advocates and free follow-up counseling by master's-prepared social workers. "We are able to be very supportive to victims of abuse," says McBride. ■

SOURCES

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Dilemma: Patients call about discharge orders

Clarify instructions, but don't diagnose

You probably know the legal risks of giving medical advice over the telephone, but did you know that different rules apply when patients are calling about their discharge instructions?

"The only acceptable telephone advice in the ED is clarification of advice on discharge instructions," explains **Stephen A. Frew**, JD, vice president and risk consultant with Johnson Insurance Services, a Madison, WI-based company specializing in risk management for health care professionals.

However, the call should be documented on the record, and there should be a "verbal order" documented from the doctor as to what the patient was told, says **Shelley Cohen**, RN, CEN, an educator for Health Resources Unlimited, a Hohenwald, TN-based consulting company specializing in ED triage and health care leadership. For example, you should document the date and time of the call on the patient's chart. Also, you should document, for example, "Patient called two days later because he forgot to mention he was recently placed on a new heart pill. He wants to know if it is safe to take this pill along with the prescription he was given."

If a patient calls with this kind of question, you should do one of the following, says Cohen:

• Put the patient on hold, ask the physician what he or she recommends, document this as a verbal order and relay it to the patient, and have the physician sign your note.

EXECUTIVE SUMMARY

When patients call for clarification of their discharge instructions, it may be appropriate to give verbal instructions. If there is any doubt that the patient understands, review their concerns with the ED physician.

- If the patients ask whether they should return to the ED, tell them that you can't give a medical diagnosis over the phone.
- Document the caller's name, time of call, and what the patient was told.
- Use electronic discharge instructions with enough detail and that are easy to understand.

• Take the patient's name and phone number, and call him or her back after you have discussed the concerns with the ED physician. "The doctor on duty may want a chance to review the record before making a recommendation. Then document what the recommendation is," explains Cohen.

If the patients are calling back because they don't understand your instructions, you need to decide whether the patients are best served by returning for re-education or by being given instructions over the phone. "Common sense, critical thinking, and nursing judgment should prevail here," says Cohen.

Patients may say they cannot read the instructions, cannot find them, or don't know what a word means, says Frew. Since these questions do not involve giving medical advice outside the scope of the discharge instructions, this type of information has a low potential risk of harm to the patient or liability risk to the nurse, he explains.

"I would have little concern with responding to these questions during the first 24 to 48 hours," he says. "After that, the question should probably be directed to the physician's office."

If patients ask a question such as, "How am I supposed to change my dressing?" this falls in the area of patient education and is appropriate to the nursing scope of practice, says Frew. If the caller does not seem to understand your verbal clarification, refer them to their physician's office, their insurance company ask-a-nurse service, or suggest they come back to the ED, he adds.

However, if the patient asks whether their condition is bad enough to come back to the ED, this is a different story, says Frew. "The caller has crossed into the danger zone by asking for a medical diagnosis over the phone," he says.

While some callers overreact to minor situations, most are probably looking for reassurance that they don't need to come back to the ED, says Frew. "When the situation later proves to have warranted an ED visit, the caller feels guilty and tends to place the blame on the nurse who gave them 'permission' not to come in," he says. In this case, suggest that the patient come back to the ED or call 911, says Frew.

Cohen says other than clarification of discharge instructions, the only advice you should give over the phone is to say, "If you think you need to be seen by a physician, you can go to an emergency department, an urgent care center, or your primary care physician's office."

Likewise, nurses should avoid talking about the cost of the ED visit, she says. "Simply state that all persons are entitled to emergency care regardless of their ability to pay," says Cohen. "This advice is applicable to both patients and family members [asking for advice]."

SOURCES

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An automated discharge instruction system should reduce the number of these calls, except if the patient has thrown the instructions away or lost them, adds Frew.

Instructions should be sufficiently detailed, written in simple language, and available in foreign languages used by the patient populations served in your ED, adds Frew. "A signed copy of the discharge instructions should be placed in the medical record to ensure that there is no question that the patient received instructions and what they contained," he says. ■

ED nurses get ECGs done in 10 minutes or less

Catch all potential myocardial infarctions at triage

A patient drove herself to your ED with pain in her jaw, but it seems to have subsided. Would this patient sit in your waiting room for minutes or hours — or would she get an electrocardiogram (ECG) immediately?

"With our patient census growing every day, we often have people waiting for hours," says **Kerry Short**, BSN, RN, CEN, education coordinator for the ED at Froedtert Hospital in Milwaukee.

Any patient who presents with chest pain and has associated risk factors such as smoking, high cholesterol, or family history is an "automatic ECG," she says. Nurses also obtain immediate ECGs for patients with atypical symptoms, such as jaw pain, arm pain, shortness of breath, dizziness, or upper abdominal pain with associated risk factors, says Short.

Because of an astute triage assessment and immediate ECGs, ED nurses at Osceola Regional Medical Center in Kissimmee, FL, caught two myocardial infarctions with atypical symptoms that could have gone undetected. "The patients were in the cath lab within 20 minutes and treated successfully," says **Michelle Tracy**, RN, MA, CEN, CPN, clinical educator for emergency services. "Had the patients sat in the waiting room for an extended period of time, they could have suffered irreparable heart muscle damage or even cardiac death."

At Aurora Medical Center in Oshkosh, WI, all ED nurses were re-educated on triage of cardiac patients, says **Jane Hottinger**, RN, MSN, the ED's clinical educator. "We included the typical presentation of a patient with chest pain, but also stressed the atypical symptoms of chest pain, specifically with patients who are elderly, diabetic, women, and those who may be cocaine users," she says.

For patients with atypical symptoms, ECGs previously took 20-30 minutes and now take fewer than 10 minutes, says Hottinger. "After we have our ECG and interpretation, we are able to start a saline lock and draw blood to send for rapid cardiac enzymes within 10 minutes or less," she says. "All our nurses and techs are taught how to perform an ECG at orientation and, as of this year, will be checked annually for competency."

ECG times cut in half

At Osceola's ED, a goal of 10 minutes was set for door-to-ECG, says Tracy. "However, we continued to miss this target, with an average time of 18 minutes," says Tracy. Whenever a patient needed an ECG, the technician usually was away from the triage area, she explains.

To address this problem, a technician now is stationed

EXECUTIVE SUMMARY

ED nurses are doing electrocardiograms immediately at triage for patients with potential cardiac symptoms, with goals of fewer than 10 minutes.

- Patients with atypical symptoms are no longer left waiting.
- Give nurses inservices on the need for immediate action for cardiac patients.
- Train nurses on giving ECGs during orientation, and have nurses make morning rounds with cardiopulmonary if necessary.

at triage to give ECGs and also helps the ED triage nurse with reassessment of vital signs.

ED nurses now make the ECG the first priority and have an "ask questions later" policy, says Tracy. "If the patient states that they are here for chest pain, we stop everything and do the ECG," she says. "We now have an average time of 6.7 minutes. We have cut our times in half, and the patient receives expedient care."

Since several potential MI patients may present at the same time, a second ECG machine was added at triage, says Tracy. "We have had to change the mindset that it is essential to have someone up front to do ECGs even if that means leaving the back short," she says. "Charge nurses have been educated not to pull the tech from triage."

At Kanabec Hospital in Mora, MN, a small critical access hospital with about 7,500 ED visits annually, nurses are trained to call for an ECG immediately on any cardiac patient, and those patients bypass triage and go directly to a room, says **Dorothy Kohl**, RN, CEN, ED manager. "We're a small hospital, but our goal is five minutes for stat ECGs, and that is our average time," Kohn says. "Obviously there are occasional outliers, but those are rare."

At Legacy Health System in Portland, OR, ED technicians are paged as "stat ECG" for an immediate response, and ED nurses do ECGs if the techs are not available, says **Judy Nordblom**, RN, clinical nurse specialist for emergency services.

They have a goal of nine minutes and have been meeting this goal for more than two years, says Nordblom. "Basically, the patient is immediately roomed, undressed, and an ECG is done," she says.

They have made the ECG a priority over all other things, Nordblom adds. "It is the only way we have been able to maintain the times," she says.

ED nurses were all trained by cardiopulmonary services, and now an ED technician trains all new nurses at orientation on a monthly basis, says Nordblom. The training consists of lead placement, information input, and techniques for tracing errors, movement, and wave lines. "If a nurse is having a difficult time, we send them with cardiopulmonary to do morning rounds for two to four hours to learn techniques," she explains.

At Osceola's ED, nurses are completing a nine-hour computer-based class to improve triage skills, reports Tracy. "We had an incident where someone came in with complaints of epigastric abdominal pain, and they did not do an ECG," she says. The patient was having an acute MI and was sent to the cath lab after evaluation by the ED physician. "The patient had a positive outcome, but our motto is 'time is muscle,' and we strive to save what we can," Tracy says. ■

SOURCES

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Take these steps to speed care to cardiac patients

Here are the steps that occur when patients present with possible cardiac symptoms at the ED at Osceola Regional Medical Center in Kissimmee, FL:

• The patient is immediately put into a wheelchair and brought to a room at triage where the electrocardiogram (ECG) is completed by a technician.

• The concierge follows the patient into the room, and the patient is preregistered at the bedside.

• The technician brings the ECG to the nurse, who obtains the patient's family history and presenting symptoms. This chest pain risk stratification tool is used to help the physician determine the patient's acuity.

• The nurse brings the ECG and the chest pain stratification tool to the ED physician for review. The patient is placed in a room; or if there are no rooms available,

the charge nurse is notified. All emergent patients are found a room, even if it means bringing a patient waiting for a disposition to wait in the ED hallway.

• If the patient is deemed urgent or nonurgent, they have their labs and chest X-ray done, and reassessment is done by the nurse in the waiting room. ■

Don't let tubing errors harm patients in your ED

Oxygen tubing is mistakenly connected to the intravenous (IV) line of a child receiving mediation via a nebulizer to treat asthma. The oxygen tubing is disconnected in seconds, but air entered the IV tubing, and the child dies instantly.

Could this incident, which actually happened in an ED, happen in your department? A recent *Sentinel Event Alert* on tubing misconnections from the Joint Commission on Accreditation of Healthcare Organizations warns that these dangerous errors are continuing. **(To access the *Alert*, go to www.jcaho.org. Under "Sentinel Events," click on "Sentinel Event Alert." Under "Index of Issues," click on "Issue 36 — April 3, 2006: Tubing misconnections — a persistent and potentially deadly occurrence.")**

Nine cases involving tubing misconnections, which resulted in eight deaths and one instance of permanent loss of function, have been reported to the Joint Commission's Sentinel Event Database to date.

4 steps to follow

The Joint Commission recommends the following:

• Do not purchase nonintravenous equipment that is equipped with connectors that can physically mate with a female luer IV line connector.

• Always trace a tube or catheter from the patient to the point of origin before connecting any new device or infusion.

• Recheck connections and trace all patient tubes and catheters to their sources whenever patients are "handed off" to a new setting or service.

• Route tubes and catheters having different purposes in different, standardized directions, such as IV lines routed toward the head and enteric lines toward the feet.

EXECUTIVE SUMMARY

Tubing misconnection errors still are occurring in the ED, and these errors can be fatal.

- Always trace a tube or catheter from the patient to the point of origin before connecting any new device or infusion.
- Recheck connections and trace all patient tubes and catheters to their sources whenever a handoff occurs.
- Route tubes and catheters in different, standardized directions.

SOURCES

For more information on tubing misconnection errors in the ED, contact:

- **Hedy Cohen**, Vice President, Institute for Safe Medication Practices, 1800 Byberry Road, Suite 810, Huntingdon Valley, PA 19006. Telephone: (215) 947-7797. E-mail: hcohen@ismp.org.
- **Rodney Hicks**, PhD(c), ARNP, Research Coordinator, Center for the Advancement of Patient Safety, U.S. Pharmacopeia, 12601 Twinbrook Parkway, Rockville, MD 20852-1790. Telephone: (301) 816-8338. Fax: (301) 816-8532. E-mail: rh@usp.org.

Always trace tubings

Here are actual cases of tubing errors that occurred in EDs in 2005, reported to MedMARx, the U.S. Pharmacopeia's national database for medication errors:

• An ED nurse intended to give nimodipine 30 mg via a nasogastric tube, but actually gave it through an endotracheal tube. "The drug was administered into the lung instead of the stomach and resulted in coughing, additional suctioning, and monitoring," says **Rodney Hicks**, PhD(c), ARNP, research coordinator for the Rockville, MD-based Center for the Advancement of Patient Safety.

• An ED nurse infused blood through nonblood tubing. "This presents a problem to packed red blood cells going through tubing of that size and the potential for hemolysis," says Hicks. "Hemolysis would occur because the diameter of the tubing is smaller, and some cells could rupture."

The inline filter used with blood would filter the cellular debris, but when a red blood cell ruptures, it leaks potassium in the blood stream, explains Hicks. "Too many blood cells that rupture could lead to renal failure by blocking the tubules and concurrently raising the

serum potassium levels," he says. "These are two conditions that predispose patients to death."

• ED nurses infused nitroglycerin without the appropriate PVC tubing. "The product has the potential to "leech" into traditional plastic tubing. When this happens, the amount delivered to the patient is variable," says Hicks. The patient may be given a higher dose than needed, he explains.

To reduce the risk of error associated with wrong site tubing connections or wrong administration route, label all IV tubings and confirm the right tubing by tracing the tubing to its origin, says **Hedy Cohen**, vice president of Huntingdon Valley, PA-based Institute for Safe Medication Practices.

"Unfortunately, in the ED setting this can become difficult to do in emergency situations," says Cohen. "But until vendors manufacture tubings that have connections that will not allow for wrong-site attachments to happen, staff must recognize the potential for lethal errors to occur and adopt the practice of labeling and tracing of all tubings." ■

Is EC available in your ED? If not, here's what to do

If a rape victim came to your ED asking how to prevent pregnancy, what would you tell her? The answer depends on which ED the woman came to for treatment, according to a study on the availability of emergency contraception (EC).

Researchers in Massachusetts contacted all the EDs in the state by telephone and asked a nurse or physician whether EC was available for a sexual assault victim. The study found that EC was not available in 15% of EDs, with an additional 5% saying that it was up to the individual physician.[1]

There are 40,000 visits to EDs for sexual assault each year, of which approximately 5% result in pregnancy.[2] The study's findings show that access to EC is limited and that services for victims of sexual assault are inconsistent, says **James A. Feldman**, MD, one of the study's authors and an ED physician at Boston Medical Center.

"There are many implications for ED nurses," he says. "I was struck by how often the investigators reported that it was the ED nurse who worked to ensure that the mock patient would be provided with appropriate care." These actions included the suggestion to wait for a different shift if the physician on the current shift would not provide EC or the suggestion to go elsewhere if EC would not be available.

EXECUTIVE SUMMARY

Emergency contraception is not consistently available in EDs and isn't always offered to sexual assault victims or patients who report unprotected intercourse.
- Use an evidence-based protocol to ensure EC always is offered.
- Give timely care to sexual assault victims.
- Give information about EC to patients who report unprotected intercourse.

SOURCES/RESOURCE

For more information on emergency contraception in the ED, contact:
- **James A. Feldman**, MD, Boston Medical Center, Department of Emergency Medicine, 818 Harrison Ave., Boston, MA 02118. Fax: (617) 414-5975. E-mail: jfeldman@bu.edu.
- **Patricia Mitchell**, RN, Emergency Department, Boston Medical Center, 818 Harrison Ave., Boston, MA 02118. Telephone: (617) 414-4075. E-mail: pmitch@bu.edu.

A toll-free Emergency Contraception Hotline [(888) NOT-2-LATE] and the Emergency Contraception web site (http://not-2-late.com) are jointly sponsored by the Association of Reproductive Health Professionals (ARHP) and the Office of Population Research at Princeton (NJ) University. The hotline and web site are completely confidential, are available 24 hours a day in English and Spanish, and offer names and telephone numbers of providers of emergency contraception located near the caller's area in the United States and parts of Canada. The web site also is available in French and Arabic.

Massachusetts passes ED law

Massachusetts recently passed legislation requiring all EDs to provide information, offer and dispense EC to rape survivors. **(For more information about the law's requirements, go to www.mass.gov/legis. Click on "Text of Senate Bills," enter "2165" and click on "Senate Bill, No. 2165.")**

Feldman recommends the following:

• Ensuring that an evidence-based protocol is developed to allow timely access to emergency contraception. "For women who survive sexual assault, there should be a very standard protocol for examination and evidence collection, ideally performed by a SANE [sexual assault nurse examiner]" says Feldman. However, for a woman who reports contraceptive failure, a pelvic exam should not be part of a routine EC protocol, he adds.

• Providing timely care to sexual assault victims. "Patients should not have to wait extended times in the ED," says Feldman.

• Including information about EC with other educational information given to patients in the ED, especially those who report unprotected intercourse or present with a concern about a sexually transmitted infection.

At Boston Medical Center, all sexual assault victims are flagged in the ED's electronic charting system as "Name: XXX, XXX" and "Chief Complaint: Trauma X" to protect the identity of the patient, says **Patricia Mitchell**, RN, ED nurse manager. All sexual assault victims are seen by the psychiatric nurse, who in turn contacts the SANE, says Mitchell. **(For more information on SANE programs, see "Use these tips to collect evidence of sexual assault," *ED Nursing,* January 2003, p. 34.)**

"If there is no SANE nurse available, the psychiatric nurse takes care of the patient," she says. "All patients are offered EC."

Feldman points to a patient he recently cared for who had been raped and not informed about the option for EC. "She was forced by her mother to have the child and suffered lifelong psychiatric trauma a result of this," he says. "I believe that on this issue, ED nurses can make an important difference at the individual and societal level." *(Editor's note: A decision is pending from the Food and Drug Administration on making emergency contraception available over-the-counter.)*

References

1. Temin E, Coles T, Feldman JA, et al. Availability of emergency contraception in Massachusetts emergency departments. *Acad Emerg Med* 2005; 12:987-993.
2. La Valleur, J. Update in contraception: Emergency contraception. *Obst Gyn Clinic* 2000; 274:817-839. ■

How to calm children when starting an IV

Children between the ages of 6 and 12 have a particularly strong fear of injections, reports **Marianne Hatfield**, RN, BSN, system director of emergency services at Children's Healthcare of Atlanta. "They think in concrete terms and if they don't see something, they can only imagine what it is," she explains. "To simply describe an intravenous cannula as a small 'straw' brings to mind the type they drink from at McDonald's."

ED nurses at Children's remove the needle from a small gauge intravenous (IV) catheter, attach a short piece of connector tubing to it, and tie it to their nametag or keep it in their pocket, says Hatfield. When explaining the procedure to a child, they show them the actual IV and let them touch it to see that it is soft and pliable and does not have a needle in it.

"Even teenagers and some adults think that an IV is a needle in your arm or hand," says Hatfield. "It really helps to show them what the IV is. We try not to focus on the needle part, but some are astute enough to ask, "How do you get the straw into my hand?"

If patients ask this, show them how the little straw is inserted with a needle that immediately retracts and doesn't stay in the cannula, suggests Hatfield. "That provides an opening to discuss why we have placed a topical numbing cream on the potential sites for IV insertion," she says.

If they ask whether the IV insertion is going to hurt, nurses don't say no. Instead, they explain that they are doing everything they can to keep it from hurting, she says. "We then let them know that after it is over, they can tell us whether it hurt or not," she says. "Most will answer, 'It didn't hurt that much,' or 'I didn't even feel it!'"

Ask what the child knows about why he or she is getting an IV, and if he or she has had an IV in the past and, "Which part worries you the most?" recommends **Kristen R. Johnson**, CCLS, child life specialist for the pediatric ED at Johns Hopkins Children's Center in Baltimore. "This will provide an opportunity to learn from the patients' previous experiences, offer a chance to clarify any misconceptions, and identify coping strategies to match the patients' potential stressors," she says.

COMING IN FUTURE MONTHS

- What the Joint Commission is asking about disaster preparedness
- Dramatically improve pain management for children
- Tips to avoid life-threatening mistakes at triage
- Stop errors involving high-risk medications

Have the child rehearse their coping strategy, such as taking slow deep breaths or blowing a pinwheel, says Johnson. "Taking time to practice in advance makes it more likely the patient will be able to use the coping strategy at the time of the procedure," she explains. ■

CE instructions

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.

The semester ends with this 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. ■

CE objectives/questions

Participants who complete this activity will be able to:

- **identify** clinical, regulatory, or social issues relating to ED nursing;
- **describe** how those issues affect nursing service delivery;
- **integrate** practical solutions to problems and information into the ED nurse's daily practices, according to advice from nationally recognized experts.

21. Which is recommended to improve care of obese patients in the ED, according to Pamela S. Rowse-Schmidt, RN?
A. Pinch up instead of pressing down when giving intramuscular injections.
B. Avoid using weight-based dosages of heparin.
C. Give patients standard doses of narcotics.
D. Choose areas with less adipose tissue for intramuscular injections.

22. Which should you tell patients who telephone to ask whether they should return to the ED, according to Shelley Cohen, RN, CEN?
A. Instruct the patient to obtain medical care at the ED, urgent care clinic, or primary care physician's office.
B. Give as detailed advice as time allows.
C. Only give advice after consulting with the ED physician.
D. If you give advice, document exact words used.

23. Which is an effective way to prevent tubing misconnection errors, according to recommendations from the Joint Commission on Accreditation of Healthcare Organizations?
A. Use nonintravenous equipment with connectors that physically can mate with a female luer IV line connector.
B. Always trace a tube or catheter from the patient to the point of origin before connecting any new device or infusion.
C. Don't recheck connections during handoffs unless a problem is reported.
D. Avoid routing tubes and catheters in standardized directions.

24. Which should be part of your ED's protocols for emergency contraception (EC), according to James A. Feldman, MD?
A. Routinely require a pelvic exam even if the patient requests EC due to contraceptive failure.
B. Ensure that EC always is offered to sexual assault survivors.
C. Avoid giving patients information about EC unless asked.
D. Advise patients seeking EC to go to their primary care physician.

Answers: 21. D; 22. A; 23. B; 24. B.