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IN THIS ISSUE

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ED nurses cope with unpredictable, violent patients on methamphetamine

Patients are often combative, may have life-threatening conditions

A patient in extremely poor health comes in with severe chemical burns and many underlying medical conditions. That same patient refuses to comply with discharge instructions and is capable of assaulting and threatening ED staff at a moment's notice.

These are the challenges of caring for a patient abusing methamphetamines (meth) in the ED. Emergency nurses interviewed by *ED Nursing* report dramatic surges in these cases.

"The amount of patients we are seeing for meth-related visits has been steadily increasing over the last several years," reports **Ken Lanphear**, RN, BSN, ED nurse at Borgess Medical Center in Kalamazoo, MI. "Of course, this can be probably said about every ED in the country."

Meth-related ED visits increased 54% between 1995 and 2002, according to a report from the Drug Abuse Warning Network, and comprised 42,538 ED visits occurring in the last six months of 2003.[1,2]

University of Colorado Hospital's ED sees about 10 meth patients a month, and they often have suicide attempts, adverse reactions, or overdoses, reports **Molly A. Evans**, RN, manager of the ED. "We see many more that present with dental problems, skin abscesses, anxiety, heart palpitations, and other

EXECUTIVE SUMMARY

ED nurses report dramatic increases in patients abusing methamphetamine, with 42,538 visits in the last six months of 2003, and a 54% increase nationwide between 1995 and 2002. These patients present with a variety of health problems, are frequently violent, and usually fail to comply with discharge instructions.

- Patients may require restraint and "safe" rooms with equipment and clothing removed.
- Ask social services and case managers to help with referrals.
- Give patients a neurological assessment and psychological screening.

associated problems."

St. Joseph's Hospital and Candler Hospital, both based in Savannah, GA, are each seeing at least one meth case a month in their EDs, reports **Michael McCumber**, director of emergency services. "The biggest challenge comes from patients who are violent or aggressive," he adds. "They may need to be sedated."

Meth patients use more resources and have a longer length of stay than other ED patients, according to **Wayne T. Watson**, MSN, RN, operations director of the intensive medicine clinical program for Salt Lake City-based Intermountain Healthcare, which has 19 EDs. "Often these patients require intense critical care and life-saving testing and procedures," says Watson. "Dealing with their agitation and hallucinations may be difficult."

The smallest rural EDs in the system see two to four meth patients each year, the community EDs see five to 10, and the largest urban ED sees 20 to 25 per month, says Watson. "The challenges for a rural ED can be greater because of limited staff, hospital services, and other resources," he notes.

Some of the EDs have developed specific protocols and training to deal with the surge in meth patients, reports Watson. "Our pediatric hospital also has put a specific protocol in place to deal with children who are exposed to meth by their parents in their homes," he adds. **(To access, see resource box, p. 75.)**

4 tips to follow

Consider the following items when caring for meth patients:

• Patients may have unrelated health care needs.

Meth abusers are very neglectful of their health and often have a variety of medical problems, says Lanphear. "So if they do come to the ED for other health care needs, they are invariably much worse and more difficult to treat," he says.

Arranging care from visiting nurses isn't possible as the patient usually won't want someone coming into their home and patients usually won't follow discharge instructions, adds Lanphear.

ED nurses gave one meth patient intravenous pain medications for severe abdominal pain, and he was diagnosed with a kidney infection. Because the patient felt better, he refused to be hospitalized and was sent home on oral antibiotics — only to return to the ED four days later. "His infection had gotten much worse, and he was almost in sepsis," says Lanphear. "When asked if he had been taking his antibiotics, his reply was, 'I forgot.'"

Remember that meth patients are dealing with an addiction and often are unemployed without social support, says Evans. "Often they have alienated their family or friends," she says. "Frequently they don't follow up with care instructions, which many times leads to their medical condition worsening."

Bring in social services and case management to help with referrals, Evans suggests.

• Patients may be violent.

Recently, a combative meth patient brought to the ED at LDS Hospital in Salt Lake City kicked a police officer in the chest and knocked him to the ground, says Watson. "The patient was verbally abusive and totally out of control, hitting, trying to bite, and kicking," he says. Watson says an experienced ED nurse caring for that patient said, "At that moment, I thought I was going to die."

It took a team of eight ED staff members to control the patient and place an intravenous line to medicate him, says Watson. "This brought him under control and allowed us to further care for him," he says.

When two meth patients were brought by police to a

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Savannah ED, it took multiple staff members along with police to get them into a room, says McCumber. "At that point [lorazepam] was given to sedate them. There had to be multiple doses given," he recalls. "The staff was at risk because these patients were completely irrational and had no pain factors to help restrain them."

Potentially violent meth patients must be continuously observed, and the room has to be made safe says McCumber. "Everything is removed from the room, including all equipment, cables, and blood tubes. This is to protect the patient as well as the staff," he says.

Meth patients' personal belongings are removed, and the patients are placed in paper scrubs with direct observation by security or a member of the ED staff, says McCumber.

SOURCES/RESOURCE

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To obtain a protocol to help children found in drug-exposed settings, go to the Utah Drug Endangered Children Alliance web site (www.utahdecalliance.org.) Click on "Utah's Medical Protocol" and then "LEVEL 2 Best Practice Guidelines for Medical Evaluations of Children Found in Drug Exposed Settings."

• Patients may have life-threatening conditions.

Patients may have other drugs on board, notes McCumber. According to a report from the Rockville, MD-based Drug Abuse Warning Network (DAWN), more than 60% of ED visits for meth also involved other substances, such as cocaine or alcohol.[1]

Assess the patient's heart rate and rhythm, hypertension, and respiratory rate; look for signs of difficulty breathing; and perform a neurological check by assessing for jerking, blurred vision, confusion, or convulsions, says Watson.

Patients also need psychological screening for hallucinations, anxiety, paranoia, and potential violence, adds Watson. "Many of our EDs have specially trained crisis workers who carry out an initial psychological assessment if the patient is able to talk and reason, which many are not," he explains. "If not, the psychological examination is completed later as an inpatient."

Protection of the patient's airway is the single most important thing to consider, says McCumber. "More severe cases may require placing the patient on a ventilator and medicating to elevate or lower blood pressure," he adds.

• Be ready for patients with severe chemical burns.

"We see a lot of people who are burned or injured while cooking meth," says **Dawn Klenck**, RN, clinical educator for the ED at Deaconess Hospital in Evansville, IN. "The problem is that they always tell a different story and lie about their injuries, so we play a guessing game in how we treat them. We usually have that gut feeling when they are not being truthful."

Individuals with "meth-making" chemicals on them, such as anhydrous ammonia, need to be decontaminated prior to entering the ED, says Klenck. "The chemicals they use to cook meth with are very toxic," she says.

If exposed to the chemicals used to make meth, the patient's clothing must be removed and bagged, and the patient has to be showered, says Lanphear. "Remarkably, thus far, we haven't had to decontaminate any patient from a meth lab explosion. But we expect this could happen at any time," he says.

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1. Substance Abuse & Mental Health Services Administration, Office of Applied Studies, 2003: Emergency Department Trends from Drug Abuse Warning Network, Final Estimates 1995-2005. DAWN Series D-24, DHHS Publication No. 03-3780; Rockville, MD.
2. Substance Abuse & Mental Health Services Administration, Office of Applied Studies. Drug Abuse Warning Network, 2003: Estimates of drug-related emergency department visits. DAWN Series D-26, DHHS Publication No. 04-3972. Rockville, MD; 2004. ■

JCAHO is impressed with stroke care at Seattle ED

A 45-year-old man was brought by ambulance to the ED at Swedish Medical Center in Seattle. He presented with aphasia and left hemiparesis with symptom onset two hours before arrival.

"He was ruled in as a candidate for treatment and given t-PA [tissue plasminogen activator]," recalls **Judy Street**, RN, manager of emergency services. "He shook our hand with his left hand the next day. All of us were in tears."

This was the first patient treated by ED nurses with a new stroke protocol that has dramatically improved patient care. After implementing many practice changes to ensure timely care for acute stroke patients, the hospital received the 2005 Ernest Amory Codman Award from the Joint Commission on Accreditation of Healthcare Organizations. The award recognizes excellence in the use of outcomes measurements to improve quality and patient safety.

A stroke algorithm was developed using guidelines published by the National Institute of Neurological Disorders and Stroke.[1] *(Editor's note: To access the guidelines, go to circ.ahajournals.org. Click on "Scientific Statements, "By subject," "Stroke," and "2005 Update: Guidelines for the Early Management of Patients with Ischemic Stroke.")*

Although only patients with onset of symptoms within three hours are candidates for t-PA, other interventions can be done for patients with symptom onset greater than three hours, such as blood pressure control, repeat computed tomography (CT) scans, or getting the patient in the care of a neurologist, says **Stanalee Reisinger**, RN, an ED nurse and a "champion" of the stroke project.

Here are the steps that occur when a potential stroke patient comes to the ED:

• While the ED physician assesses the patient, the nurse simultaneously assures intravenous access is obtained, an electrocardiogram (ECG) is completed and read, and labs are drawn and reviewed within 30 minutes.

"The lab slip is color-coded to alert the lab technician running the tests that this color was a potential CVA [cerebral vascular accident]," says Street.

• If a CVA is suspected, a CT is ordered. The stroke team and radiologist are alerted by pager. The CT scan is completed.

• If the ED physician considers the patient a potential thrombolytic candidate, admitting arrangements are made while the patient is still in CT.

The ED did the following to improve stroke care:

• A CT scanner was installed in the ED.

This facilitates the assessment, evaluation, and treatment of stroke patients, says Street. "Transport time to the CT scanner in the radiology department was a minimum of 15 minutes as it required an elevator, attachment of transport monitors, and staff to transport the patient," she says. "We eliminated this time entirely."

The cost of the CT scanner, including construction, was $1.2 million.

• All ED physicians and nurses became certified in the National Institutes of Health Stroke Scale (NIHSS).

Every ED nurse needs to be able to perform this assessment, says Reisinger. "All our ED nurses are capable of doing the NIHSS," she says. "We are all certified, and this is mandatory."

Nurses take a four-hour class given by the hospital's clinical stroke team and they must pass an exam to be certified, with nurses paid for this time, adds Reisinger. **(To offer a class in your ED, see resource box on p. 77.)**

• Nurses are given feedback on success stories and problem cases.

ED nurses attend monthly meetings where recent stroke cases are reviewed, including the total times from door-to-drug or door-to-intervention.

"The immediate feedback gives us the ability to celebrate our successes," says Street. "There is also a monthly stroke team that meets to identify any system or practice issues, and these [changes] are implemented immediately." For example, the team reviewed a case in which there was a delay in getting the CT scan report to the ED physician, so the results now must be given within two minutes.

• The ED physician, charge nurse and triage nurse act collaboratively.

"Any time we have a stroke patient with onset of symptoms under 12 hours, we want them into a treatment room on an emergent basis," says Reisinger. When the triage nurse identifies a patient as a possible candidate for treatment, the charge nurse is called immediately, and the two nurses keep in constant contact with two-way radios.

EXECUTIVE SUMMARY

A Seattle ED implemented a new stroke protocol that significantly reduced delays for tissue plasminogen activator and other interventions.

- To cut delays, computed tomography (CT) scans are done in the ED. Admitting arrangements are made while the patient is in CT scan.
- A color-coded system is used to alert technicians of a cerebral vascular accident.

SOURCES/RESOURCE

For more information about stroke care in the ED, contact:

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The National Institute of Neurological Disorders and Stroke offers a training DVD for the National Institutes of Health Stroke Scale. To order on-line, go to www.ninds.nih.gov. Click on "Stroke Scale Training." The cost is $50 including shipping. After viewing the stroke scale, nurses may return to the site and enter scores to earn a maximum of 3.5 contact hours or continuing education credit. For more information, call (800) 352-9424 or (301) 496-5751 or e-mail: nindspubs@iqsolutions.com.

This was a huge change for Swedish Medical Center, Reisinger says. "Previously when a patient came in with weakness or dizziness, we may not have immediately thought of stroke, and they may have sat out in the lobby," she says. "Now these patients are prioritized as emergent and are placed in a treatment room within two minutes."

• Nurses are trained to pinpoint the time of onset.

Some patients may wake up in the morning with stroke symptoms and don't have a timeframe to go by for when the symptoms began, and they are ruled out for treatment as a result, notes Reisinger. "If we don't know the exact onset of symptom time, we can't give them t-PA," she says.

ED nurses now ask patients specific questions to narrow down the timeframe, such as "Did you feel normal when you went to bed?" "Did you wake up in the middle of the night at any point?" "Many patients were ruled in for t-PA as a result of this," Reisinger says.

Reference

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ED nurses cut drug errors by 'speaking up for safety'

A nurse is about to give the incorrect dosage to a patient, but she catches the error beforehand — and you notice it's because two "sound-alikes" are stored next to each other. A physician orders diphenhydramine for a patient with a "Triple C" overdose, but you know an anticholinergic shouldn't be given.

Would you speak up about these incidents?

ED nurses have reduced errors and near-misses with a "speak up for safety" campaign at Edward Hospital in Naperville, IL, reports **Sharron Chivari**, RN, MSN, CEN, clinical leader of the ED.

"Nurses are encouraged to speak up without fear of reprisal. Walk through our halls and you'll see "Speak Up" posters reminding everyone that it's really OK to say something. We applaud nurses that have the confidence to address their concerns," says Chivari. ED nurses view a videotape, developed in-house, that educates staff on appropriate ways of speaking up about safety concerns, she explains.

When a new ED nurse thought a dose of morphine was too high for her patient, she spoke up — and held her ground even after the physician explained that the higher dose was needed for pain control. "The physician was taken aback and politely asked another nurse to give it instead, but her co-workers refused to do so based on the same rationale," says Chivari. As a result, the physician agreed to give half the dosage, and the patient's pain was relieved.

This is an example of the "Speak up for Safety" campaign in action, says Chivari. "It was not only pleasing to have such a new nurse speak up, but have others willing to support her in her efforts to do the right thing."

EXECUTIVE SUMMARY

Encourage ED nurses to report safety concerns to technicians, nurses, and physicians without fear of reprisal.

- Role-play with a colleague or ask an experienced nurse for coaching before confronting a colleague.
- Implement "double-check" processes that require nurses to verify dosages before administering high-risk medications.
- Get in the habit of asking physicians questions about patient care.

Administering IV Medications with Continuous Infusion Solutions or Dilutions

Purpose: To provide guidelines for standard dilution of intravenous (IV) medications and identify requirements for placement of patients requiring IV therapy.

Policy statements: All IV medications/drips will be prepared according to established parameters to minimize drug dosing confusion and errors. The use of an infusion device is required when administering these medications. Patients receiving IV medications will be placed in an appropriate clinical setting.

Procedure:

1. IV drips will be mixed according to established dilutions.
   - — Exceptions for adult drips may be made per physician order or due to patient's clinical condition.
   - — Drip rates will be adjusted accordingly.
   - — Any order received for pediatric or neonatal intensive care unit patients that deviates from the standard concentration will not be entered. Clarification of the order will be obtained by the pharmacist from the physician before the drip will be made.
2. IV medications will be given in clinical areas where the staff is adequately trained in administration of the drug, side effects, and related patient care.
   a. Placement and monitoring of the patient is determined by:
      1) the patient's conditions;
      2) level of nursing care required;
      3) the unit's scope of service;
      4) expertise of staff.
   b. IV medications may be administered throughout the hospital according to general guidelines for patient care.
3. All medications administered by infusion pump using dose mode require a second nurse verification.

Source: Edward Hospital, Naperville, IL.

ED nurses need to work collaboratively to ensure the patient is not harmed, says **Trudy Meehan**, RN, CHE, director of emergency medical services at Wyoming Medical Center in Casper. "We are accountable to the patient for our actions and in protecting our license," she says. "However, doing so in a professional manner, rather than an antagonistic manner, is key."

When voicing concerns to colleagues, do the following:

• Ask a "coach" for help.

If you're uncomfortable approaching a co-worker, ask a colleague to be a support person during the interaction, suggests Meehan. "If there is time, role-play with them so you feel more comfortable," she says.

At Edward Hospital, ED nurses occasionally ask charge nurses to coach them or even accompany them, says Chivari. "Charge nurses can validate the concern by their own experience and assist the nurse in organizing their approach." For example, a coach might instruct a nurse to say, "Dr. Smith, I'm uncomfortable with the order as it is written. Could we discuss this, please?"

"This is a nonthreatening way of presenting the dilemma and gives the physician the opportunity to clarify or rationalize the order or perhaps change it altogether," says Chivari.

• Ask for clarification.

Clarification sometimes can clear up a misunderstanding, advises Chivari. "Often a physician will catch the 'mistake' they've made or be able to justify their reason for an unexpected order," she says. For example, if you are uncomfortable discharging a patient home, give the reason, such as, "The patient is still short of breath with low oxygen saturation levels," or "The patient is unable to ambulate without assistance," she says.

Before you take the next step and go up the chain of command, make your colleague aware of the need to do so, recommends Chivari. "Appropriate, organized, professional communication is of paramount importance," she says. "It must be remembered that this isn't a power struggle or a means of achieving some other ulterior motive. The concern should be altruistically

SOURCES

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for the patient's safety."

If you believe an order to be unsafe, you also can contact the pharmacist and review the order, suggests Meehan. "If they too feel it may be an error, ask them to assist you in discussing the situation with the physician," she says.

• Use a double-check process.

Many near-misses involving dosage errors and intravenous drips have been caught by other nurses due to a new "double-check" policy, says Chivari. "Nurses must double-check the dose mode of the pump with another nurse. This makes for more of a team approach to nursing rather the usual feeling of being left on your own," she says. **(See the ED's policy for administering intravenous medications with continuous infusion solutions or dilutions, p. 78.)**

Recently, the second nurse called in to verify a dose caught a mistake with a nitroprusside drip that was set at 5 mcg/kg/min rather than 0.5 mcg/kg/min. "It was on a critical patient, the nurse had multiple orders, and the patient was unstable," says Chivari. "The patient would have received far too much of this medication and quickly become hypotensive."

• Increase your comfort level by asking questions.

Avoiding an interaction because you are uncomfortable may be easier, but this is not in the best interest of the patient, says Meehan.

She recommends approaching physicians on a regular basis with pertinent questions about diagnosis and treatment. "This allows you to become comfortable approaching physicians positively," she says. "Then should a situation arise where you need to question them on a possible error, you will be more comfortable doing so and they will not feel threatened — a win-win for both of you." ■

Ask the right questions about asthma drugs

Do you always obtain an asthmatic child's medication history? Communication barriers such as noise, overcrowding, and other distractions often prevent this from happening in EDs, says **Stephen C. Porter**, MD, MPH, an ED physician at Children's Hospital Boston.

"For a long time in the ED, we did what we need to for the 'here and now' needs of a patient, do for you today, and basically told patients to 'go see your doctor for chronic care needs,'" says Porter. However, that approach ignores the fact that there are a significant number of access issues for primary care, Porter says. "We need to step back from 'We only care about what's going to kill the patient right at this moment,' and to refocus on the care the patient needs even when they leave the ED," he says.

When researchers asked a group of parents to use a computerized tool to provide children's medications, they found that the parents' reports were more valid than nursing documentation at triage.[1] The key is to make it easy — and mandatory — for ED nurses to collect this information whether by paper forms or computerized software, says Porter, the study's lead author. "If there is only an box saying, 'List medications here,' nurses may just list a name or two of medications that seem most relevant and omit others," he explains.

EXECUTIVE SUMMARY

Frequently, ED nurses fail to obtain medication history for pediatric asthma patients, but this history should be gathered consistently to avoid future exacerbations.

- Require all current asthma medications to be listed on paper forms or electronic charting.
- Determine whether the child is taking the correct medications.
- Make sure that parents know the difference between rescue and controller medications.

SOURCES

For more information about caring for pediatric asthma patients in the ED, contact:

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The triage nurse and the ED nurse providing bedside care have slightly different priorities, adds Porter, with the primary concern at triage being to assess the child for a life-threatening condition, whereas the bedside nurse has the broader concern of whether the patient is on the correct medications.

When children come in with asthma symptoms at Children's Hospital Boston, the primary goal of triage nurses is to give them the appropriate rescue medications, says **Diana Volpe**, RN, BSN, an ED nurse. "But before we do that, we take a medication history," she says.

Triage nurses ask how many nebulizer treatments the child has had during the previous four hours. "If they had two albuterol nebulizers within the past four hours when I give mine, I count that as number three," explains Volpe.

Later in the visit, a medication reconciliation form is filled out to document more detailed information about the controller medications the patient is taking, says Volpe. "Joint Commission requires that we reconcile the home medications of all patients across the continuum of care," she says. **(For more information on medication reconciliation, see "ED nurses are key to complying with new JCAHO medication goal," *ED Nursing*, April 2006, p. 61.)**

The best time to obtain medication information is early in the process of care, either right after triage or as the patient is placed in a treatment room, says Porter. The goal is to avoid future exacerbations and ensure the patient is on the correct medications, says Porter. "For adults with chest pain, best care practice isn't just who needs to go to the cath lab; it also means deciding who needs to be on a beta-blocker or aspirin," he says.

Likewise, ED nurses must ask questions that identify whether the child has persistent asthma symptoms and if so, whether they are taking the correct medications, says Porter. "The questions that need to be asked are short and sweet and easy to figure out," he says.

He suggests asking questions that target the symptom areas highlighted by the National Asthma Education and Prevention Program guidelines.[2] These include "How often in the past four weeks did your child wake up at night with asthma symptoms?" If persistent asthma is identified, then ask, "Does the child take a medicine every day to control their asthma symptoms?" and then ask what the medicine is. Some parents wrongly believe that the controller medicine is albuterol, which provides an opportunity for education, says Porter.

If the answer to the question, "Does your child take a medicine to control asthma?" is no, act on this, urges Porter. "Either prescribe the controller or directly refer the patient back to primary care, instead of waiting until the patient circles back to their primary care physician on their own to have that same discussion."

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2. National Asthma Education and Prevention Program Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma. NIH Publication No. 97-4051. ■

Do point-of-care tests to cut chest pain delays

At triage, a patient reports fatigue and shortness of breath with a history of pulmonary and cardiovascular disease. Because you don't know the patient's brain natriuretic peptide or troponin level, you begin treating the patient for pneumonia, chronic obstructive pulmonary disease (COPD), and heart failure, and you start the admission process.

Or this patient could be given point-of-care (POC)

EXECUTIVE SUMMARY

Point-of-care testing can cut length of stay for cardiac patients by two hours, but is only used by 10% of EDs currently.

- Nurses find out within seconds if a patient has elevated cardiac markers.
- The admission process and treatments can be started immediately, so outcomes are better.
- New devices do quality control automatically to take the burden off ED nurses.

testing right at triage, with no cardiac damage identified. As a result, the patient could be discharged home from the ED. POC testing for cardiac patients is done in only about 10% of EDs currently, says **Cynthia Cadwell**, RN, CNS, a San Diego-based consultant specializing in improving quality of care and patient throughput.

However, if you don't perform cardiac marker testing for chest pain patients, you could be prolonging the length of stay for each patient by hours and delaying life-saving interventions, she warns.

"Getting an electrocardiogram [ECG] for a patient with chest pain is something you would never consider waiting an hour for," says Cadwell. Yet that is what EDs are doing with the non-ST elevation population, she says. "This patient population deserves immediate attention which we are not giving them."

Only about half of acute myocardial infarction cases show a pattern of ventricular injury on ECGs, and the remainder have to be identified with cardiac biomarkers, explains Cadwell.

Most chest pain patients who have delayed testing won't die in the ED, says Cadwell. However, if treatment is not started in the ED, it often doesn't happen until about 24 hours later, and outcomes are poorer, she explains.

"There is a huge disconnect between ED and critical care," says Cadwell. "The ED is the front door, and it has a huge impact on services downstream."

Chest pain patients are high volume and high risk, and they often are admitted because of lack of immediate information in the ED, says Cadwell. "Research has shown that if the patient's determinations aren't made early on, their treatment is extended and outcomes are poorer," she says. "Having the information in the ED means better patient care, shorter length of stay, and less costly care, so this is a win-win-win situation for everybody involved."

Delays cut by two hours

A study done at Stony Brook (NY) University's ED found that bedside point-of-care testing of the cardiac marker troponin 1 cut the patient's ED length of stay by almost two hours.[1]

For patients without clear-cut symptoms, ED nurses normally would have drawn blood, given a chest X-ray and ECG, and possibly given aspirin, but they would have waited up to two hours for results to come back before getting them admitted, says **Julie Cangro**, RN, former ED clinical coordinator at Stony Brook and currently ED educator at Brookhaven Memorial Hospital Medical Center in East Patchogue, NY.

"If we see patients have an elevated troponin level, we can call cardiology right away to work on getting them a bed," she says. "Instead of being pending, the patients get a lot more attention because you know right away."

A room was dedicated for POC testing in the ED, with nurses attending a 15-minute orientation with a return demonstration and examination to demonstrate competency, says Cangro.

The POC test results allow ED nurses to decide the next step immediately, ranging from discharge home to critical care unit admission. "It gets patients on track very quickly, similar to when you find out a patient isn't pregnant and can send her right back to CT scan instead of waiting," she says.

One downside was that performing quality controls was additional work for nurses, says Cangro. "I ended up doing quality controls to take the burden off the nurses," she says. "It was very cumbersome and difficult to do if you are working clinically."

However, new devices are available that do quality control automatically, which frees ED nurses to focus on patient care, says Cadwell. "ED nurses don't want to test equipment and write down a bunch of numbers," she says. "They want to take care of patients. Nurses want put the blood in and get the results."

At Baptist Memorial Hospital in Memphis, ED nurses do point-of-care testing for blood glucose monitoring, occult stools, urine Hemastix, and pH testing for amniotic fluid. This has improved patient care, patient satisfaction, and turnaround times, says **Maggie Roaten**, RN, ED nurse manager.

"For pediatric patients, bedside urine Hemastix enables us to get results in seconds, as opposed to sending the urine to the laboratory, which could have a

SOURCES

For more information on point-of-care testing in the ED, contact:

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- **Julie Cangro**, RN, Emergency Department Education, Brookhaven Memorial Hospital Medical Center, 101 Hospital Road, East Patchogue, NY 11772. Telephone: (631) 687-4093. E-mail: jcangro@bmhmc.org.
- **Maggie Roaten**, RN, Nurse Manager, Emergency Department, Baptist Memorial Hospital-Memphis, 6019 Walnut Grove Road, Memphis, TN 38120. Telephone: (901) 226-5000.

turnaround time of 30 minutes," she says.

For bedside glucose monitoring, each ED nurse attends a glucose monitoring inservice and passes a written exam. "Six months after initial testing, we require a re-evaluation and, thereafter, an annual competency evaluation," says Roaten.

Patient identification is done immediately with the handheld device, she adds. "Diabetics can have their blood sugar tested and be treated quickly, often within 10 minutes, whereas sending a test to the lab could take up to 30 minutes."

One challenge was what to place in the glucose testing device to identify patients. "We resolved this by placing patients' names in the device, or if patients can't give us their name, we use "John Doe" in the glucose monitor for patient identification," says Roaten.

Reference

1. Singer AJ, Ardise J, Gulla J, et al. Point-of-care testing reduces length of stay in emergency department chest pain patients. *Ann Emerg Med* 2005; 45:587-591. ■

Does your next patient want to quit smoking?

Many ED patients say they want an intervention

As an ED nurse, you are in a unique position to do two things: Assess tobacco use, and assess the patient's interest in quitting.

"Such interventions take very little time and have a huge potential impact on patient health," says **Jon O. Ebbert**, MD, assistant professor of medicine at the Mayo Clinic College of Medicine in Rochester, MN.

Researchers interviewed 376 current tobacco users in the ED of Saint Marys Hospital at the Mayo Clinic in Rochester during a three-week period in 2003. The study found that 73% of patients who were interested in receiving a tobacco use intervention reported that they would like all or part of it to be done after ED discharge, such as telephone-based counseling in their homes.[1]

"The population of patients that visit our nation's EDs have high rates of tobacco use, and almost half of them have an interest in quitting," says Ebbert, one of the study's authors. A recent Boston study had similar findings, with researchers reporting that 72% of current smokers had tried to quit in the past year and 33% wanted an outpatient referral.[2]

"Ask about smoking and gently inquire whether current smokers are trying to quit," recommends **Carlos Camargo**, MD, one of the study's authors and an ED physician at Massachusetts General Hospital in Boston. "Provide encouragement for those who are trying to quit smoking." Regardless of the patient's answer, emphasize how important smoking cessation is for good health, he adds.

Say the following to patients, advises **Edwin D. Boudreaux**, MD, PhD, ED researcher at Cooper University Hospital in Camden, NJ, and lead author of the Boston study:

• "Have you smoked any cigarettes or cigars in the past 30 days?"

• "Quitting smoking is the best thing you can do for your health." If the patient came to the ED for asthma exacerbation, chronic obstructive pulmonary disorder, myocardial infarction, or pneumonia, add, 'Your ED visit is probably related to your smoking," he recommends.

ED nurses at Saint Marys Hospital in Rochester, MN, offer current smokers nicotine alternatives such as gum, lozenges, and inhalers, says **Janet L. Finley**, RN, MS, clinical nurse specialist for the ED. "The amount is based on how much they smoke and how soon the

EXECUTIVE SUMMARY

Studies show that many ED patients who are current smokers are interested in receiving an intervention to help them quit smoking.

- Ask patients if they are current smokers and, if so, ask them if they are interested in quitting.
- Tell patients whose chief complaint is asthma, chronic obstructive pulmonary disorder, or pneumonia that their ED visit is probably related to their smoking.
- Give patients a card with a toll-free smoking quitline.

COMING IN FUTURE MONTHS

■ How to comply with the 2007 National Patient Safety Goals

■ Proven ways to cut door-to-electrocardiogram delays

■ Avoid being sued for mistakes made at triage

■ Dramatically improve compliance with discharge instructions

SOURCES/RESOURCE

For more information on smoking cessation in the ED, contact:

- **Edwin D. Boudreaux**, PhD, Emergency Medicine, Cooper University Hospital, One Cooper Plaza. Camden, NJ 08103. Telephone: (856) 757-7801. Fax: (856) 757-9651. E-mail: Boudreaux-Edwin@cooperhealth.edu.
- **Carlos A. Camargo**, MD, DrPH, Director, EMNet Coordinating Center, Massachusetts General Hospital, 326 Cambridge St., Suite 410, Boston, MA 02114. E-mail: ccamargo@partners.org.
- **Jon O. Ebbert**, MD, Assistant Professor of Medicine, Mayo Clinic College of Medicine, 200 First St. S.W., Rochester, MN 55905. Telephone: (507) 255-3965. Fax: (507) 266-7900. E-mail: ebbert.jon@mayo.edu.
- **Janet L. Finley**, RN, MS, Clinical Nurse Specialist, Emergency Department, Saint Marys Hospital, 1216 Second St. S.W., Rochester, MN 55902. Telephone: (507) 255-8086. Fax: (507) 255-9929. E-mail: finley.janet@mayo.edu.

For a telephone helpline that serves as a single access point to the National Network of Tobacco Cessation Quitlines, go to www.smokefree.gov. Click on "Get telephone support." Callers speak with a counselor, receive information materials, and obtain referrals to other resources.

patient smokes their first cigarette upon waking."

Patients also are given a smoking cessation information packet and offered a nicotine dependency consult at a local center, Finley says. If patients are admitted to the ED's observation area, the consult occurs there, she says. **(See story about free resources for current smokers, this page.)**

Tobacco use interventions may not be possible in the ED because of limited time and resources, but the researchers all suggest a simple and quick intervention: Give patients a referral to tobacco counseling hotlines. "Few patients attend outpatient clinic visits for tobacco treatment, but many patients appear amenable to telephone-based counseling interventions," says Ebbert. "This may be the best option we have."

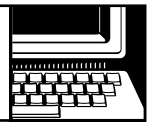
The intervention can be as simple as handing patients a business card that says "Interested in quitting smoking? Call 1-800-QUITNOW," says Ebbert. This number will triage patients to their state tobacco quitline based upon the area code from which they are calling, he explains.

Services offered by tobacco quitlines vary by state, but all involve the opportunity to speak with a counselor, says Ebbert. "A growing number of states are providing medications at low cost or no cost to all or some of their callers," he reports.

References

1. Klinkhammer MD, Patten CA, Sadosty AT, et al. Motivation for stopping tobacco use among emergency department patients. *Acad Emerg Med* 2005; 12:568-571.
2. Boudreaux ED, Kim S, Hohrmann JL, et al. Interest in smoking cessation among emergency department patients. *Health Psychol* 2005; 24:220-224. ■

WEB ALERT



Free resources for patients who smoke

Free resources are available to help patients quit smoking on the Tobacco-Free Nurses web site (www.tobaccofreenurses.org), including links to the guidelines, patient education materials, state cessation quit-line numbers, and Internet-based programs. Posters, patient education brochures, and a pocket guide titled "Helping Smokers Quit," which gives nurses evidence-based information to help patients quit smoking, can be downloaded at no charge. *(Click on "Resources.")*

"Nurses who are interested in smoking cessation themselves can access Quitnet through our web site," adds **Mary Ellen Wewers**, PhD, MPH, one of the nurse leaders of the program and professor and associate dean for research at the Ohio State University School of Public Health in Columbus.

"ED nurses should ask all patients about smoking status and offer strong personal supportive advice to quit smoking," Wewers urges. "Nurses can also mention that efficacious therapy is available, including pharmacotherapy." ■

Vital Signs

Site: Tobacco-Free Nurses
Address: www.tobaccofreenurses.org
Phone: (877) 203-4144
E-mail: webmaster@tobaccofreenurses.org

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.

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. ■

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.

17. Which is recommended when caring for ED patients who are abusing methamphetamines, according to Molly A. Evans, RN?
A. Don't give written follow-up instructions.
B. Never restrain these patients.
C. Bring in social services to provide referrals.
D. Avoid giving pain or blood pressure medications.

18. Which of the following was done to improve stroke care at Swedish Medical Center?
A. Computerized tomography (CT) scans are done in the ED.
B. The electrocardiogram is not completed until after the ED physician assesses the patient.
C. Admitting arrangements aren't made until the CT is completed.
D. Only physicians perform assessments using the National Institutes of Health Stroke Scale.

19. Which is recommended for pediatric asthma patients, according to Stephen C. Porter, MD, MPH?
A. Document medications only if asthma is severe.
B. Triage nurses should be the only ones documenting a patient's medications.
C. Obtain medication information right after triage or when the patient is in a treatment room.
D. Leave patient education to the primary care physician to avoid delays.

20. Which is recommended for smoking cessation in the ED, according to Jon O. Ebbert, MD?
A. Realize that almost all current smokers will reject information about smoking cessation.
B. Assess the patient's interest in quitting only if their chief complaint is smoking-related.
C. Ask all current smokers to attend outpatient clinic visits for tobacco treatment.
D. Give all current smokers a quitline phone number.

Answers: 17. C; 18. A; 19. C; 20. D.