ED NURSING®

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IN THIS ISSUE

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EDs brace for high volumes and acuity due to flu vaccine shortage

Take steps now to bolster staffing and prevent transmission in waiting areas

Although ED nurses at Towson, MD-based St. Joseph Medical Center had treated two flu-related cases as of press time, neither patient had the flu.

"Both patients were elderly and had waited hours on line to get a flu shot," says **Vicki Blucher**, RN, BSN, CEN, clinical educator for the ED. One patient passed out while waiting and was admitted to the hospital, while the other complained of weakness.

The story underscores what most ED nurses are anticipating: Due to a shortage of the flu vaccine, this flu season is going to be anything but ordinary. "We anticipate an increase in volume and also acuity," says **Susan McAllen**, RN, BSN, CEN, administrative nurse manager for the adult and pediatric EDs at Montefiore Medical Center in the Bronx. "Even though high-risk patients are supposed to be getting the vaccine, we know that certain people are not going to be able to obtain it for whatever reason."

Nina M. Fielden, MSN, RN, CEN, clinical nurse specialist for the ED at Cleveland Clinic Foundation, says, "I am worried about the nursing home patients who aren't getting vaccinated, and then a mini-epidemic breaks out."

Because of concerns about the vaccine shortage, ED staff at Palomar Pomerado Health in Escondido, CA, held a press conference educating the public on the importance of hand washing and keeping the elderly and the very young

Prepare your hospital for a very unusual flu season

Vaccine shortages may wreak havoc with hospital EDs, absenteeism

With the unprecedented shortage of influenza vaccine this flu season, hospitals are scrambling to prepare for what may be a record number of flu patients presenting to their already overcrowded EDs and for staff shortages due to record absenteeism. After almost half of the United States' planned vaccine supply was contaminated, high-risk candidates — including the very young, the elderly, those with chronic illnesses, pregnant women, the immunocompromised, and health care workers with

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EXECUTIVE SUMMARY

Due to the vaccine shortage, ED nurses expect higher volumes and acuity. Solutions include prevention of transmission in waiting areas, vaccination of staff, and increased staffing in case of a widespread outbreak.

- Encourage ED staff to receive the flu shot or intranasal vaccine.
- Ask patients with respiratory symptoms to wear masks, and provide alcohol gel hand-washing dispensers in waiting rooms.
- If a widespread outbreak occurs, consider creating a flu unit or treating patients in nonclinical areas.

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away from others known to have the flu, reports **Kim Colonnelli**, RN, BSN, MA, district director for emergency and trauma services.

Nurses point to the 2003-2004 flu season, which had an unusually early onset and killed 152 children, as reason for concern, along with constant news reports about the vaccine shortage inflaming public worries. **(See related story on pediatric flu cases, p. 16.)**

"We are concerned that this is getting so much media attention that patients with upper respiratory illnesses may seek ED care because they are concerned they have the flu," says **Rosemary Kucewicz**, RN, BSN, ED manager at Northwest Community Hospital in Arlington Heights, IL.

To reduce transmission of the flu and avoid staffing shortages, consider these steps being taken by several EDs:

• Encourage ED staff to get the flu shot immediately.

At most EDs interviewed by *ED Nursing*, limited doses of the flu shot were being offered to staff.

"Every effort will be made to give them the [inactivated flu shot] vaccine itself, but we were also able to secure almost 500 doses of the FluMist, so people will be able to get that instead if it's not contraindicated," says Blucher. FluMist is an intranasal influenza vaccine manufactured by MedImmune in Gaithersburg, MD, and contraindications include individuals who are pregnant, have immune deficiency diseases, or a history of Gullain-Barre syndrome. (For more information about contraindications, go to www.flumist.com. Click on "Health Care Professionals" and "Prescribing Information.") Between the two types of vaccine, the entire ED staff will be covered, Blucher says.

Although the Centers for Disease Control and Prevention (CDC) does not recommend FluMist for health care workers who are in contact with severely immunosuppressed patients in protective care such as isolation units with positive air pressure, those who have contact with patients with lesser degrees of immunosuppression, such as diabetes, asthmatics taking corticosteroids, or HIV-positive patients, can get FluMist. (For more information, go to: www.cdc.gov/flu/about/qa/nasalspray.htm.)

In previous years, only about 30% of ED staff were vaccinated, says Kucewicz. "Prior to the shortage, we were going to make it mandatory this year," she adds.

There is enough vaccine to immunize every direct caregiver in the ED, but if the ED staff do not take advantage of it, then employee health will begin immunizing other direct caregivers in the hospital, says Kucewicz. "We hope ED staff will avail themselves of this opportunity," she says.

At Montefiore, the vaccine was prioritized for

high-risk areas with direct patient contact including the ED, with about 70% of ED staff already vaccinated, says McAllen. "We've been very diligent in getting the staff vaccinated," she says. "If we end up being sick, there will be staffing shortages, and we need to be able to take care of the patients when they come in."

If a widespread flu outbreak occurs, ED staff will be offered a 30-day supply of the prophylactic antiviral drug amantadine free of charge, says Blucher.

• Prevent transmission in waiting areas.

Asking patients with respiratory symptoms to put on masks has become routine in many EDs. "This is the second year we are doing it, and we had no complaints last year," Blucher says. "It's giving people increased awareness of infection control."

Additional waterless hand hygiene containers were added to waiting areas at Northwest's ED, and respiratory packets containing tissues and a mask are offered at the ED entrance. "We are shouting from the rooftop, 'Hand washing, hand washing, hand washing!'" says Kucewicz.

In addition to alcohol gel hand washing dispensers and masks in ED waiting rooms, signs are posted at entrances asking visitors to refrain from visiting patients if they have flulike symptoms, reports Colonnelli.

ED nurses at St. Joseph's Hospital and Medical Center will be screening suspected patients for influenza at triage and performing rapid diagnostic testing on lower-acuity patients who potentially could be discharged from the waiting room, reports **Kim Flanders**, RN, BSN, CEN, clinical nurse manager for emergency services. In addition, all patients with respiratory complaints or symptoms wear masks, as well as the triage staff when caring for these patients, she says. "Signs are posted throughout the department, and masks are available to the public at entrance doors," says Flanders.

Hand washing remains the best means to prevent transmission of the flu, she underscores. "Our hospital monitors and reports hand washing compliance quarterly by department," she says.

Cleveland Clinic Foundation is reinstituting a "cough respiratory etiquette" that it started last year, says Fielden. "We are not emphasizing fever so much this year, as we did last year for SARS [severe acute respiratory syndrome], but are instead emphasizing cough," she says. Surgical masks, boxes of tissues, and hand sanitizer for patients are kept in waiting areas, and signs ask patients to notify nurses if they have a cough.

The signs show a person coughing and a picture of a surgical mask, and include instructions to cover the mouth; use tissues when coughing, sneezing, and blowing the nose; and clean hands afterward, says Fielden. "I will also be posting signs from the CDC that talk about other ways to avoid the flu," she says. **(To obtain flu-related patient education resources, see above box.)**

• Consider staffing in advance.

Palomar Pomerado Health is staffing up both EDs in anticipation of an influx of patients similar to what they had last year, reports Colonnelli.

SOURCES/RESOURCES

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- **A variety of free downloadable patient education materials**, including "Cover Your Cough" posters, brochures, and fact sheets are available on the Centers for Disease Control and Prevention web site (www.cdc.gov/flu/). Under "Health Professionals," click on "Patient and Provider Education."

At Northwest, nurses are discussing the possibility of creating a "flu unit" to care for these patients if volumes rise, says Kucewitz. "This would help the ED because there would not be as many blocked beds on the med/surg units," she explains. "However, this idea is not the top choice for the inpatient nurses because of the protective equipment you need to wear all day when caring for these patients."

The EDs at Palomar and Pomerado are working with the state department of health to establish guidelines for times when the capacity exceeds what the hospital can safely handle, with the goal of placing flu patients in nonclinical areas on a temporary basis.

"This might include a place that has otherwise been used as a meeting room, or a classroom," says Colonnelli. ■

SOURCES

For more information on pediatric flu cases, contact:

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You'll need to be ready for pediatric flu cases

In addition to starting earlier than usual, the 2003-2004 flu season was especially hard on the pediatric population, with several deaths occurring among children in Texas and Colorado. As a result, the Atlanta-based Centers for Disease Control and Prevention requested that states report influenza-associated pediatric deaths, with 152 influenza-associated deaths in children reported by 40 states.

To prevent flu cases in children, consider the following steps being taken by two EDs:

• Education efforts are stepped up.

"Our ED nurses working closely with our outpatient facilities to increase education about prevention and spread of flu," says **Katy Goss**, RN, MSN, manager of the emergency medicine and trauma center at Children's National Medical Center in Washington, DC. Here are steps taken to educate children and their parents:

— Videotapes on hand washing and the spread of germs play in waiting areas.

— Patient handouts are distributed regarding the importance of hand washing and covering mouths.

— Additional waterless soap dispensers were placed in the ED waiting room next to tissue holders and garbage cans.

— Decorative child-sized surgical masks are placed at triage.

— "Doctor clowns," who are hospital volunteers, come to the ED waiting room to demonstrate hand washing and covering mouth when sneezing and coughing for children.

• Parents are being informed about how to manage flu symptoms.

To prevent flu from becoming life-threatening and prevent repeat ED visits, tell parents the following, recommends **Angie Black**, RN BSN, trauma coordinator at Chicago-based Children's Memorial Hospital:

— When a child is vomiting, give Pedialyte or Popsicles instead of water.

"Only give small amounts every 20 minutes," says Black. "Too much at once may cause the child to vomit." Water does not have the electrolytes that children need, Black advises. "Gatorade should be used with caution because of the high sugar that can aggravate diarrhea," she says.

— Manage fever with acetaminophen or ibuprofen. "Use one and stick with it," says Black. "It is not a good idea to alternate the two drugs."

There is no reliable evidence to support the safety or efficacy of alternating these drugs, she explains. "The American Academy of Pediatrics does not recommend it, and many experts recommend against it," says Black. "Complicated dosing schemes increase the risk of dosing errors."

Make sure to give the appropriate dose in the proper time frames as listed on the instructions, she adds.

— Come to the ED if you recognize signs of dehydration or respiratory distress.

Signs of dehydration include dry mouth, eyes appearing sunken, and decreased urine output, says Black. Children in respiratory distress look like they are having problems breathing, or they may have difficulty talking or feeding because they cannot catch their breath.

"Make sure to teach parents how to properly bulb suction an infant's nose, since they are obligate nose breathers until four months or so," says Black. ■

Don't overlook signs of life-threatening aneurysm

The statistics are chilling: 50% of abdominal aortic aneurysm (AAA) patients die before reaching the ED, and perioperative mortality for patients who do reach the ED ranges from 50%-90%.[1]

To prevent missing an aneurysm, you must know the signs and symptoms to watch for, says **Rebecca Steinmann**, RN, MS, CEN, CCRN, CCNS, clinical educator for the ED at Children's Memorial Hospital and formerly clinical educator for the ED at Northwestern Memorial Hospital, both based in Chicago.

"Take the time to obtain a thorough history, a systematic pain assessment, and a detailed physical exam," she advises.

A recent wrongful death lawsuit filed by the family of the late TV sitcom star John Ritter puts a spotlight on the liability risks associated with a missed aortic aneurysm, based on the claim that a misdiagnosis of a heart attack contributed to his death.

"The majority of abdominal aortic aneurysms are asymptomatic and present only when they begin to leak or rupture," notes **Debra Graf**, RN, BSN, CEN, director of patient care for Quick Care/Kid Care at the ED at Community Medical Center in Toms River, NJ, and former ED educator. Symptoms to watch for include the following, she says:

• The patient or family often reports a syncopal episode prior to the onset of other symptoms.

• Hypotension may stabilize temporarily.

• The patient will have tachycardia and excruciating back or abdominal pain that may radiate to the groin or legs.

• Other symptoms include pallor, diaphoresis, oliguria, mottling of the lower extremities or abdomen, umbilical or flank ecchymosis, abdominal tenderness or rigidity, diminished bowel sounds, and diminished or absent femoral pulses. "Only 25% of these patients will have a palpable pulsatile mass," Graf says.

ED nurses should suspect AAA in any patient older than age 60 with low back pain and a history of smoking, hypertension, diabetes, or hyperlipidemia, she notes. "It is five to seven times more prevalent in males than females," she adds. "So if a 70-year-old male arrives with complaints of a syncopal episode and low back pain, we assume AAA until our work-up proves otherwise."

The gold standard test for AAA is a computed tomography (CT) scan, but the work-up also will include a complete blood count, chemistry, type and screen, cardiac markers, amylase, lipase, chest X-ray, electrocardiogram (ECG), and urine analysis, says Graf. "Since the worst-case scenario is a ruptured AAA, which is fatal, there is no risk of mistaking an AAA for other conditions," she says. "The risk occurs when the patient is treated for cholecystitis or something else when actually there is a leaking aorta that is going to kill the patient."

EXECUTIVE SUMMARY

Symptoms of abdominal aortic aneurysm (AAA) include a syncopal episode, tachycardia, and severe back or abdominal pain. Patients with thoracic aneurysms may report intrascapular pain, a ripping sensation in the chest, hoarseness, and difficulty swallowing.

- Suspect AAA in any patient older than age 60 with low back pain and a history of smoking, hypertension, diabetes, or hyperlipidemia.
- Abdominal aneurysms are usually diagnosed with ultrasound or computed tomography scans, while thoracic aortic aneurysms typically are diagnosed with chest X-rays.
- Perform a thorough history, pain assessment, and physical exam to assess for signs and symptoms.

Abdominal or thoracic aneurysm?

A patient's signs and symptoms depend on where in the aorta the aneurysm is located, says Steinmann. "Eighty percent of aortic aneurysms occur in the abdominal region," she notes.

AAAs are characterized by severe back pain, accompanied by abdominal pain and tenderness with palpation, says Steinmann. "The back pain may radiate to the legs, groin, or lower back. A widened midline pulsation proximal to the umbilicus may be noted on physical exam." Abdominal aneurysms often are diagnosed with ultrasound or CT scans, she adds.

Most abdominal aortic aneurysms occur in 50- to 70-year-olds, and the primary etiology is atherosclerosis and related factors — so a history of hypertension, hyperlipidemia, and diabetes increases the risk, says Steinmann. "Be aware of younger adults, though, with a history of hereditary connective tissue disorders such as Marfan's syndrome or Type IV Ehlers-Dano, as these disorders increase the risk for aortic root dilatation and subsequent dissection or rupture."

In thoracic aneurysms, patients generally report excruciating intrascapular pain or a ripping sensation within the chest, and they may experience hoarseness and difficulty swallowing, says Steinmann. "A pulsation may be apparent at the sternoclavicular joint, and a murmur of aortic insufficiency may be noted if the

SOURCES

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thoracic aorta dissects down to the level of the aortic valve," she says.

Patients with thoracic dissections present with cardiac ischemia noted as ST elevation on the ECG if the area of dissection involves the coronary arteries, says Steinmann. "It's critical to differentiate the cause of the ischemia, as administering fibrinolytics agents to the patient with a dissecting thoracic aneurysm may exacerbate the dissection," she says.

Prior to rupture or dissection, patients with enlarging thoracic aneurysms may note pain in the upper back, coughs and wheezes, a hoarse voice, difficulty with swallowing, and Horner's syndrome with symptoms of drooping eyelid, constricted pupil, and dry skin on one side of the face from the expanding aorta exerting pressure on surrounding organs in the chest, says Steinmann.

Thoracic aortic aneurysms are most commonly diagnosed on chest X-ray with evidence of a widened mediastinum, says Steinmann. "CT scans and magnetic resonance imaging may also be helpful in making a differential diagnosis," she says.

Reference

1. Naude GP, Bongard FS, Demetriades D. *Trauma Secrets.* Philadelphia: Hanley & Belfus; 1999. ■

Simple steps reduce risks to elderly trauma patients

They are at much higher risk for adverse outcomes

If a patient comes to your ED with multiple rib fractures after a fall, would you be worried that the injury is life-threatening? The answer largely will depend on the patient's age, says **Kathleen Emde**, RN, CCRN, CEN, trauma service coordinator at Overlake Hospital Medical Center in Bellevue, WA.

For young patients, the only treatment needed may be pain medication, with discharge instructions to follow up with their primary care providers should they develop any difficulty breathing or other problems, she explains. "However, in elders, multiple rib fractures constitute a serious threat to their health," says Emde.

Elders may develop hypoxemia more rapidly because they have less respiratory reserve, and they are more likely to develop pneumonia, she says.

Mortality rates are much higher in older trauma patients than younger patients with comparable injuries, says **Sharon S. Cohen**, RN, MSN, CEN, CCRN, clinical nurse specialist for emergency preparedness and former trauma clinical nurse specialist at North Broward Hospital District in Fort Lauderdale, FL. Mortality rates for trauma patients begin to increase at 45 years of age and rise sharply for patients older than age 55, increasing again for patients 65-74, says Cohen. The mortality rate for patients 75-84 years is more than double the rate for patients 14-24 years old, she adds.

"Because of this increased risk of mortality, elderly trauma patients need a focused exam that addresses all their pre-morbid conditions to complete the whole picture," Cohen says.

To significantly improve care of elderly trauma patients, do the following:

• Alter interventions as needed to avoid harming the patient.

"Constant and frequent assessment and reassessment is needed to ensure that whatever is done has a therapeutic effect and not a negative one," says Cohen.

EXECUTIVE SUMMARY

Elderly trauma patients have higher mortality rates than younger patients with comparable injuries. You'll need to consider comorbid conditions and medications the patient is currently taking.

- Remove patients from backboards rapidly.
- Monitor patients on blood thinners closely for bleeding and blood loss.
- For patients on beta-blockers, remember that the heart rate will not increase even if the patient is going into shock.

SOURCES

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For example, laying an elderly person flat on a backboard may cause an increase in respiratory workload or distress that a 20-year-old would not experience, she says.

If a patient has underlying lung disease and sleeps with head elevated or in a recliner, then lying them flat will only cause respiratory problems, says Cohen. "If you really need them on a backboard, then put the bed in reverse Trendelenberg position to aid the respiratory effort," she says.

Many elderly are kyphotic, and lying flat is very difficult, as their head does not touch the backboard, says Cohen. To address this, put a towel roll under the patient's head once the cervical spine has been cleared, she recommends.

Patients should be removed from backboards rapidly in order to prevent skin breakdown, adds Emde.

• Remember that medications may put patients at greater risk for adverse outcomes.

Injured elders may arrive with comorbidities including respiratory, cardiovascular, and renal function problems, and they may be on multiple medications that can complicate their trauma care, says Cohen.

For example, if elder trauma patients are on a blood thinner, the patients are more likely to suffer a bleeding event after even a low-energy trauma mechanism than if they were not on the drug, she says. Patients on blood thinners need to be closely monitored for bleeding and blood loss with serial hemoglobin/hematocrit levels, frequent abdominal and neurological assessments, and abdominal computed tomography scan or ultrasound, Cohen says.

Also, many elderly are on beta-blockers that will not allow the heart rate to increase when the patient's cardiac output begins to drop, which usually occurs as a trauma patient goes into shock, says Cohen. "This is the body's way of compensating for a problem, namely hypovolemic shock," she says. "In the case of the elderly patient on a beta-blocker, the heart rate does not increase, and compensation is lost."

If no increase in heart rate is seen, you may not appreciate that the patient has internal bleeding and is going into shock, Cohen explains. "Shock, especially in the older person, can cause renal failure due to low flow — and now the cascade of multiorgan failure is in action."

• Change policies to meet the needs of elder patients.

Your policies should reflect the fact that the injured elder is more complex than the younger patient with the same degree of injury, says Emde. "In our institution, we discussed this issue after we had an elder with multiple rib fractures admitted to the hospital."

The 69-year-old patient was admitted to the floor and rapidly decompensated before the pulmonologist arrived. He was transferred to the intensive care unit (ICU) and intubated, and he later died. After this event, the ED's policy was changed to state that any person 65 years of age or older with more than two rib fractures must be admitted to the ICU or admitted to the floor with an immediate pulmonologist consultation, says Emde.

"Since we have been following this policy, we believe that our injured elders are being treated more aggressively and more appropriately," she says. ■

Thrombolytic guidelines may stop controversy

Are physicians in your ED skeptical about the use of thrombolytics for stroke patients? If so, this may soon change, as a result of new recommendations from the Northbrook, IL-based American College of Chest Physicians (ACCP).

The evidence-based guidelines review existing and new medications for stroke patients, including thrombolytics. "A grading system is used, based on available evidence and strength of that evidence," says **Lauren Brandt**, RN, MSN, CNRN, clinical director of the Neurosciences, Brain & Spine Center at Brackenridge Hospital in Austin, TX. "Several of the stronger recommendations directly affect the ED."[1]

The guidelines might put an end to a longstanding controversy over use of thrombolytics for stroke patients in the ED, says **Dawn K. Beland**, RN, MSN, CCRN, CS, CNRN, stroke center coordinator at The Stroke Center at Hartford (CT) Hospital. "The initial

EXECUTIVE SUMMARY

New guidelines from the American College of Chest Physicians recommend the use of thrombolytics for stroke patients in the ED within a three-hour time window of onset of symptoms.

- Give aspirin to patients who aren't eligible for thrombolytics.
- Thrombolytics aren't recommended beyond the three-hour time frame.
- If your ED doesn't have appropriate resources, patients should be transferred.

studies were criticized because they were heavily sponsored by the industry that makes the drug," she says. "Now, an independent analysis of the data still supports those findings. The initial study results have been confirmed to show that thrombolytics do lessen disability and death from stroke."

Many ED physicians did not believe thrombolytics were warranted for these patients, but the guidelines give solid evidence that this should now be standard of care, emphasizes Beland. "I just don't see the argument that someone could use to withhold treatment from eligible patients," she says. "Even if the guidelines still don't convince some physicians, it will convince the public that they should start requesting this."

You can dramatically improve care of stroke patients by using these recommendations from the new guidelines:

• Patients who are eligible for thrombolytics should be given aspirin.

"It should become part of the ED nurse's routine that once an acute ischemic stroke patient is found ineligible for thrombolytics, they should administer aspirin orally or rectally if necessary, prior to the patient's transfer out of the ED," says Beland.

• Use of thrombolytics is recommended within a three-hour window for acute ischemic stroke.

However, the guidelines state that thrombolytics should not be used in the presence of early computerized tomography (CT) changes, explains Brandt. "The use of thrombolytics should be considered in all eligible patients if they present within the three-hour window, unless they have early CT changes."

The ACCP found enough documented evidence to make this a Grade 1A recommendation, adds Brandt. "They looked at six randomized, controlled trials. This evidence is very well documented — better than with a lot of other interventions that we use consistently."

The guidelines also recommend against the use of thrombolytics for acute ischemic stroke in the three- to six-hour window, she adds.

• Patients with an angiographically demonstrated major cerebral artery occlusion and not other signs of major early infarction should be considered for intra-arterial thrombolytics.

"If your hospital has intra-arterial capability, you should be aware of that option, especially since it opens the time-to-treatment window to six hours or possibly longer for basilar artery thrombolism," says Brandt.

• Appropriate resources should be utilized to improve stroke care.

The Stroke Center at Hartford Hospital uses a hotline to help manage stroke patients in EDs throughout Connecticut and in surrounding states, including Vermont, New York, and Massachusetts, says Beland. "We provide this service to as many people and institutions as we can, and we market it heavily," she says. This marketing is done through direct mail, educational presentations, and conference exhibits, says Beland.

When the hotline is called, the following steps occur:

— The bed coordinator checks to see if there is space for the patient. Meanwhile, the on-call neurologist is notified and contacts the referring physician to discuss the patient's symptom onset and potential treatments for which they might be eligible.

— If the patient is eligible for thrombolytic

SOURCES/RESOURCE

For more information on the new thrombolytic guidelines, contact:

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Single copies of the *Seventh American College of Chest Physicians Conference on Antithrombotic and Thrombolytic Therapy: Evidence-Based Guidelines* can be obtained for $18 plus $8 shipping. To order, contact:

- **American College of Chest Physicians**, 3300 Dundee Road, Northbrook, IL 60062-2348. Telephone: (800) 343-2227 or (847) 498-1400. E-mail: accp@chestnet.org. Web: www.chestnet.org.

therapy, the neurologist will counsel the ED physician to start administering it while transport is being arranged.

Other times, there is no reason to transfer the patient because the time frames are too long or the center can't provide anything the ED is not already doing, says Beland. "We don't want ED physicians to do anything they're uncomfortable with. But if they are unable to provide the care, they need to be able to find a link that can."

Reference

1. Hirsh J, Guyatt G, Albers GW, et al. The Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy: Evidence-Based Guidelines. *Chest* 2004; 126:172S-173S. ■

Nonpunitive culture helps prevent drug errors

If you grabbed the wrong medication for just a moment before catching your error, would you complete a detailed incident report? What if the near miss would have been life-threatening for your patient?

Although many ED nurses are often reluctant to report errors, this practice is dangerous for patients, says **Hedy Cohen**, RN, BSN, MS, vice president for the Huntingdon Valley, PA-based Institute for Safe Medication Practices (ISMP). "ED nurses believed there would be negative consequences in reporting of errors — and with good reason," she says. "When a nurse reported their error, they were often written up or had other punitive action taken against them."

There is a trend toward encouraging staff to report errors without fear of reprisal, says Cohen. "The hospital can't improve the system without having the pertinent information, and they can't get the information without the reports from frontline practitioners," she says.

When the ED at St. Francis Hospital and Health Centers in Indianapolis switched to a nonpunitive medication event reporting system, nurses were at first reluctant to report errors. "The goal was to look at the process involved instead of the person who made the mistake, so you are not setting up others for failure as well," says **Caroline Fisher**, RN, manager of the ED.

During several inservices, staff were told very clearly that there would be no retribution, punishment, or "write-ups" for reporting these items, says Fisher. Subsequently, the number of nurses reporting errors has since increased dramatically. "In the past, nurses would do everything they could to get out of completing a medication event or incident report," she says. "Now they are much more willing to do it."

EXECUTIVE SUMMARY

A nonpunitive culture increases the reported number of actual errors, near misses, and hazardous conditions, which helps improve patient safety through the identification of system failures.

- Ask nurses to report all errors, near misses, and dangerous conditions.
- Invite nurses to share their insights to improve patient safety.
- Analyze all reports, and make appropriate system changes.

To maximize the benefits of a nonpunitive culture, take the following steps:

• Ask the staff to report all errors, near misses, and dangerous conditions.

Reporting of near misses and dangerous conditions is extremely important because you can be proactive and prevent future errors from reaching patients, says Cohen. "You only need one incident report to know that if it happened once, it can happen again," she says. "You don't need to wait until it happens 10 times before you act."

The importance of reporting even minor errors, such as grabbing the wrong medication, was underscored to staff, says Fisher. "That was drilled into the education. Staff were made aware that we want them to report any tiny thing that, in the past, they would not have reported. They have been very good about that."

Most of the time, the nurses are reporting on their own errors, such as when a physician asks if they gave intravenous morphine, and the nurse realizes she gave it intramuscularly, says Fisher. "When you realize that you are headed down the hallway with morphine when you were supposed to get [meperidine], it's important to find out why that happened. Was somebody talking to you at the automated dispensing machine, was the wrong medication drawer open, was it labeled so you couldn't read it?"

• Call the form a "system improvement report" instead of an incident or error report.

"That sends the message that the goal is to improve patient safety and not to penalize the individual practitioner who committed the error," Cohen says.

• Investigate every report.

Every event report made by nurses at St. Francis is reviewed and investigated by both Fisher and the interdisciplinary MEDS team. The downside is that the system is anonymous, so the errors are harder to investigate, says Fisher. "Since the practitioner's name never goes on the form, it makes it a little tricky."

If Fisher needs more information about a report, she

SOURCES/RESOURCE

For more information on nonpunitive reporting systems, contact:

- **Hedy Cohen**, RN, BSN, MS, Vice President, Institute for Safe Medication Practices, 1800 Byberry Road, Suite 810, Huntingdon Valley, PA 19006. Telephone: (215) 947-7797. Fax: (215) 914-1492. E-mail: hcohen@ismp.org.
- **Caroline Fisher**, RN, Manager Emergency Department, St. Francis Hospital and Health Centers, 8111 S. Emerson Ave., Indianapolis, IN, 46237. Telephone: (317) 865-5440. Fax: (317) 865-5440. E-mail: caroline.fisher@ssfhs.org.

For more information on the Pyxis MedStation 2000, contact:

- **Cardinal Health/Pyxis Products**, 3750 Torrey View Court, San Diego, CA 92130. Telephone: (800) 367-9947 or (858) 480-6000. Web: www.pyxis.com. E-mail: pyxisnews@cardinal.com.

asks the ED's patient care representative or charge nurse to determine contributing factors. "Caregivers find that less threatening than having me ask them, so they are more willing to provide additional details related to the event," she explains.

A possible solution would be to leave an optional space for the reporter's name on the forms, says Fisher. "You would hope that it would get to the point where they wouldn't be afraid to sign it, but the form currently has no place for them to sign, and they don't."

• Make changes based on incident reporting.

Near-miss reports on nurses grabbing the wrong medication revealed that the automated dispensing cabinet drawer allowed access to multiple medication bins, so the ED purchased a Pyxis MedStation 2000 (Cardinal Health, San Diego), an automated cabinet with drawers that only allow access to the specific drug to be administered, reports Fisher. **(For contact information, see box, above.)**

• Encourage nurses to provide safety solutions.

On reporting forms, include a space for the nurse to include recommendations for system changes to prevent errors from reoccurring, suggests Cohen. "Nurses are great problem solvers," she says.

Many solutions actually may be low or no cost, such as prohibiting verbal orders except in emergency situations and sterile conditions when the physician may be gloved and can't write an order, adds Cohen. "This can prevent dosing errors, yet costs nothing." ■

COST-SAVING TIP

Save up to $1,000 a month on patient transport costs

When ED patients at Paradise Valley Hospital in National City, CA, needed transportation home, busy nurses typically handed out taxicab vouchers — a practice that cost the ED up to $1,200 per month, says **Stephanie J. Baker**, RN, BSN, CEN, MBA/HCM, director of emergency services.

The hospital had a van service already in place that the ED had used occasionally in the past, but the service was not timely. "The problem was that they had so many scheduled transports, they would take forever to accommodate us," she recalls.

Baker met with the director of the transportation service and determined that the van service could handle the ED's patient transport needs, as long as patients were able to get in and out of the van themselves. "The drivers are not medical people and couldn't take patients that needed [emergency medical technician]-level care," she says. "They are just providing transportation service and aren't there to be medical personnel for them."

From the hours of 8 a.m. until 10 p.m., the van service dispatch center is called when a patient needs transportation home. "Within about 20 minutes, they call back and let us know how long the transport will take to pick the patient up, so the staff will know that if the wait is three hours, they need to work on getting alternate transportation," says Baker.

A brief information sheet is filled out for the van driver with the patient's name, destination, and the time the pickup is expected, with ED staff ensuring that the patient gets on the van safely. Currently, the van transports 50-100 ED patients each month. "We went from $1,200 a month at our worst to normally

less than $100 per month. I've never been over $200 since we put this process in place," she reports.

The van service also provides a safety net for patients who require assistance getting home, which reduces liability for the hospital, says Baker. "Is it safe to put a 65-year-old lady with an ankle fracture who we put on a walker on a bus, or even a cab, so she has to walk to the door and get in and not fall?" she asks.

In addition, if for some reason the patient can't get into their home, the van service will bring the patient back, which a cab won't necessarily do, she explains. "If it's inappropriate to leave a patient, they won't just drop them off," says Baker. "You have better peace of mind knowing that the patient is being transported with a certified driver who will make sure that the patient makes it safely home."

[Editor's note: For more information, Baker can be reached at Paradise Valley Hospital, 2400 E. Fourth St., National City, CA 91950. Telephone: (619) 470-4386. E-mail: bakersj@ah.org.] ■

Use new trauma stats to improve care in your ED

New statistics from the Chicago-based American College of Surgeons' National Trauma Data Bank report have strong implications for your ED. The report's findings are based on more than 1.1 million records from 405 trauma centers in 43 states.

The report shows that the vast majority of traumatic injuries are preventable, such as bicycle helmets preventing serious head trauma, seatbelt use preventing significant injury, and safe storage of firearms preventing gun injuries, says **Kathleen Loeffler**, RN, research nurse at Harborview Medical Center in Seattle. "The real challenge in injury prevention is convincing people to use equipment that is of known effectiveness in reducing or eliminating injury," she says.

As an ED nurse, you often meet patients and families after a "near miss" such as a quick trip to the store without a seatbelt or short bike ride without a helmet. "It may sound harsh, but when patients are frightened and vulnerable in our EDs, it's a perfect opportunity to provide them with information and encouragement to use safety devices," she says.

If you are interested in starting an injury prevention program for your community, look first at your own trauma registry data, recommends Loeffler. "How are your patients getting hurt or killed? Find out your top 10 most common trauma diagnoses, then pick an injury problem that is frequent, severe, and fixable" — such as head injuries from bike crashes and a plan to provide bicycle helmets.

"As ED nurses, we are in a unique position to assess, educate and intervene in the costly, often tragic issue of trauma," says Loeffler. "From knowing types of trauma and injury patterns specific to certain populations, to counseling a distressed teen, to fitting bicycle helmets at a community health fair, there are many ways to participate in the care and prevention of injury. Just do it!" ■

RESOURCE

- **The entire *National Trauma Data Bank Report 2004*** can be downloaded at no charge on the American College of Surgeons web site (www.facs.org). Under "Divisions and Programs," scroll down to "Trauma Programs" and click on "National Trauma Data Bank." On the right side of the page, click on "National Trauma Data Bank Report 2004"' in PDF or PowerPoint format.

(Continued from cover)

direct patient care — have been identified as those to receive the vaccine.

In response to the national shortage of vaccine, Thomson American Health Consultants has developed an influenza sourcebook to ensure you and your hospital are prepared for what you may face this flu season. ***Hospital Influenza Crisis Management*** will provide you with the information you need to deal with ED overcrowding, potential liability risks, staff shortages, and infection control implications for staff and patients.

This sourcebook will address the real threat of a potential pandemic and the proposed response and preparedness efforts that should be taken in case of such an event. Major guidelines and recommendations for influenza immunization and treatment are included, along with recommendations for health care worker vaccination and the efficacy of and criteria for using the live attenuated influenza vaccine.

Don't miss out on this valuable resource in preparing your hospital for this most unusual flu season. ***Hospital Influenza Crisis Management*** also will offer readers continuing education credits. For information, or to reserve your copy at the prepublication price of $149 (a $50 discount off the regular price), call our customer service department at (800) 688-2421. Please reference code **64462**. ■

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.** After completing this semester's activity with this issue, you must complete the evaluation form provided in this 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*questions*

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

- **Identify** clinical, regulatory, or social issues relating to ED nursing. (See *EDs brace for high volumes and acuity due to flu vaccine shortage* and *Thrombolytic guidelines may stop controversy.)*
- **Describe** how those issues affect nursing service delivery. (See *Don't overlook signs of life-threatening aneurysm.)*
- **Cite** practical solutions to problems and integrate information into the ED nurse's daily practices, according to advice from nationally recognized experts. (See *Simple steps reduce risks to elderly trauma patients.)*

21. Which is recommended to prevent transmission of the flu in ED waiting areas?
A. Have patients wear masks only if they request them.
B. Avoid giving masks to patients with respiratory illness.
C. Offer the flu shot only to ED staff in high-risk categories.
D. Ask patients with respiratory symptoms to put on masks.

22. Which is a symptom of an abdominal aortic aneurysm, according to Debra Graf, RN, BSN, CEN?
A. Severe back or abdominal pain.
B. Excruciating intrascapular pain.
C. A ripping sensation within the chest.
D. Hoarseness and difficulty swallowing.

23. Which is to be expected for an elderly trauma patient on beta-blockers going into shock, according to Sharon S. Cohen, RN, MSN, CEN, CCRN?
A. Increased heart rate.
B. A heart rate that does not increase in response to a dropping cardiac output.
C. Decreased chance of internal bleeding.
D. Increased likelihood of bleeding.

24. Which of the following is recommended for the use of thrombolytics for stroke patients, according to new guidelines from the American College of Chest Physicians?
A. Thrombolytics should not be used in the ED.
B. The use of thrombolytics should be considered in all eligible patients if they present within the three-hour window.
C. The use of thrombolytics should be considered in all eligible patients if they present within the three- to six-hour window.
D. Aspirin should be given only to patients who are eligible for thrombolytic therapy.

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

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