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## New guidelines will revamp ED nursing care of cardiac patients

*Recommendations require 'change in mindset'*

If a patient in your ED goes into cardiac arrest, would your goal be to get the defibrillator to the patient as quickly as possible — even if that means delaying continuous cardiopulmonary resuscitation (CPR)?

If so, you're not in compliance with new guidelines from the American Heart Association (AHA) for emergency cardiovascular care.<sup>1</sup>

Previously, early defibrillation was the priority, with CPR considered as the intervention to perform only until definitive treatment occurred. "The evidence now suggests that it is only with adequate and continuous CPR that defibrillation can be successful," says **Barbara Weintraub**, RN, MSN, MPH, APN, CEN, manager of pediatric emergency services at Northwest Community Hospital in Arlington Heights, IL. "The ED nurse's main goal now is to ensure that CPR continues in as uninterrupted a manner as possible."

The new AHA guidelines will affect ED nurses in many ways, but are simpler overall, says **Rebecca Steinmann**, RN, MS, CEN, CCRN, CCNS, clinical educator for the ED at Children's Memorial Hospital in Chicago. For example, nurses no longer need to determine the range of atropine dose for bradycardias or determine ejection fraction status for patients with tachycardias, she explains. "Overall, the new guidelines simplify treatment, with

### EXECUTIVE SUMMARY

If a patient goes into cardiac arrest, your main goal is to ensure that cardiopulmonary resuscitation (CPR) continues in as uninterrupted a manner as possible, according to new American Heart Association guidelines.

- CPR should be initiated immediately and continued up until a *brief* monitor rhythm check is undertaken.
- Interruptions in chest compressions are discouraged, but if necessary, they should be limited to 10 seconds.
- The more continuous the chest compressions, the better the coronary perfusion.

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fewer drugs and interventions to learn, and put the focus back on the basics of CPR,” she says.

## Do continuous CPR

The research indicates that the more continuous the chest compressions, the better the coronary perfusion, says Weintraub. For this reason, the AHA now recommends rescuers do the following:

- For an adult patient with one or two rescuers prior to advanced airway placement: Deliver 30 compressions to two breaths. Push fast and hard.
- For an adult patient with one or two rescuers following advanced airway placement: Deliver continuous compressions at rate of 100 per minute without pause for ventilation, and deliver one ventilation every six to eight seconds.
- For an infant or child with one rescuer: Deliver 30 compressions to two breaths. Push hard and fast.

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- For an infant or child with two rescuers: Deliver 15 compressions to two breaths.

The delivery of one shock followed by five cycles/two minutes of CPR is another significant change for the ED, Steinmann says. “This will require more staff members to actually be involved in doing CPR,” she explains. “The need to organize resuscitative care around the two-minute/five-cycle will require conscious planning.”

The guidelines recommend limiting interruptions in chest compressions to 10 seconds whenever possible. “This is definitely an in-hospital issue, as we have more technology to distract us from making sure the basics are covered,” says Steinmann. In the ED, nurses have to address intubation, central lines, drawing labs, obtaining X-rays, echocardiograms, and blood gasses, she explains.

The focus on uninterrupted CPR will require a change in mindset, says Steinmann. “Previously, we were primarily focused on interventions with CPR only when compressions did not interfere with other activities.”

According to the new guidelines, maintaining adequate coronary perfusion is the key to improving the patient’s chances of survival. “This means that the emphasis in a pulseless arrest situation has moved to the CPR component,” says Weintraub. “CPR should be initiated immediately and continued up until a *brief* monitor rhythm check is undertaken. CPR should then be resumed immediately.”

The new CPR rate is physically demanding, because it requires you to push hard and fast with 30 compressions in fewer than 23 seconds, says **Steve Rasmussen**, RN, CEN, clinical coordinator for the ED at Virginia Commonwealth University Medical Center in Richmond, VA. “This requires frequent rescuer changes to maintain proper speed and depth due to fatigue,” he notes.

In the past, when a patient was found unconscious and pulseless, you would call for help, apply an automated external defibrillator, and use a sequence of up to three shocks without interposed chest compressions, Rasmussen says. “Now you call for help, do CPR, shock once, and immediately continue CPR for two minutes before checking for a pulse,” says Rasmussen. (See box on p. 123 for steps to follow in the ED.)

## Educate nurses

Since many ED nurses have “grown up” with the old system, change may not be easy, says Rasmussen. “It will take a lot of positive reinforcement to initiate this rollout,” he says.

This year’s changes take basic life support (BLS) and advanced cardiac life support (ACLS) in a very different direction than past AHA updates, says **Alisa Murchek**, associate director of nursing for critical

## Follow these steps for patients in cardiac arrest

**B**ased on new American Heart Association guidelines, here are the steps that would occur if a patient was found collapsed in the hospital lobby, says **Rebecca Steinmann**, RN, MS, CEN, CCRN, CCNS, clinical educator for the ED at Children's Memorial Hospital in Chicago:

— A code is called, and the automated external defibrillator (AED) from the area is placed on the patient as cardiopulmonary resuscitation (CPR) is in progress. A shockable rhythm is noted and the AED provides one shock.

— Immediately after the shock has been delivered, rescuers begin chest compressions and continue CPR for two minutes/five cycles of compressions/ventilations at which time the AED will reanalyze the rhythm and a pulse check can be done.

— When the code team arrives and the manual defibrillator is available, the patient is attached to the monitor, disposable defibrillator pads are applied, and the rescuers complete the cycle of compressions/ventilations.

— The rhythm is checked and if the patient is still in ventricular fibrillation (VF), the biphasic manual defibrillator is immediately charged to 200 joules to deliver the next shock (360 for a monophasic defibrillator). Immediately after the shock is delivered, chest compressions are resumed, without a pulse check or rhythm analysis. Ventilations are continued with a self-inflating bag connected to an oxygen source.

— The team begins to look for intravenous access and prepares to intubate, but intubation will not be attempted until the current set of compression/ventilation cycle is completed. ■

care and emergency services at University of Illinois Medical Center at Chicago. "These changes will necessitate a huge change in some of the general principles we have ingrained in our practice," she says.

For example, she notes that three stacked shocks of increasing voltage have been part of ACLS and pediatric advanced life support (PALS) practice for more than a decade. "Changing this practice to a single shock followed by two minutes of CPR will not come naturally to ED nurses," says Murchek. "We are really going to have to work hard to internalize this."

At the University of Illinois Medical Center, all BLS instructors are teaching the new guidelines, and all

ACLS instructors have obtained competencies in the new material, says Murchek. "Our BLS instructors are nurses, so they face the task of re-educating and then observing real-time clinical practice to ensure all staff are following the new BLS ratios in an arrest situation," says Murchek. "Our ED nurses will need to ensure that they recertify in ACLS and BLS as soon as possible."

To ensure compliance with the new AHA guidelines, ED nurses at Children's were given a mandatory CPR update. "We have also posted the new algorithms in our code books as ready references," says Weintraub.

At Children's, a bulletin board was posted in the ED highlighting the changes in PALS, BLS, and ACLS. "We discussed the changes at our all-day ED education days, and the new changes have been incorporated into all our resuscitation classes," says Steinmann.

At Covenant Healthcare in Saginaw, MI, ED nurses

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officially are being taught the new CPR method by the education department when they are due for CPR recertification. “In the meantime, we have already ‘trained’ our entire ED staff via a memo, as well as providing numerous AHA skills books throughout the department,” says **Marc Augsburger**, RN, BSN, manager of the emergency care center. “That way, they are knowledgeable of the changes and how to operate for the future.”

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# Don't ignore women with atypical STEMI symptoms

*Assess differently based on gender*

After an elderly white female told ED nurses at Spartanburg (SC) Regional Healthcare System that she had been having abdominal pain for several days, the patient waited to be seen. By the time she was assessed by the physician, the woman was experiencing neck and jaw pain.

An electrocardiogram (ECG) showed that this patient was having an ST-elevation myocardial infarction (STEMI). The patient immediately went to the cardiac catheterization lab, a stent was placed in her right coronary artery, and she had a positive outcome.

“Thankfully we got to her in time, because this may have resulted in severe heart muscle damage,” says **Stephanie Adam**, RN, an ED nurse at the hospital’s

chest pain center. “This prompted an inservice, and nurses were updated on the different symptoms women may present with.”

If a woman came to your ED with “clear” arteries, could she leave with an undiagnosed heart attack? The new Women’s Ischemia Syndrome Evaluation (WISE) study from the National Institutes of Health shows that many women come to the ED with atypical symptoms and clear coronary arteries upon cardiac catheterization — a condition named coronary microvascular syndrome in which the arteries are narrowed but not completely blocked.<sup>1</sup>

The plaque spreads evenly throughout the artery walls, which aren’t totally obstructed as they are with typical STEMI, says **Nina M. Fielden**, MSN, RN, CEN, clinical nurse specialist for the ED at Cleveland Clinic. “Since the arteries are ‘open,’ many women do not get the same treatment as men following a heart attack such as drugs for cholesterol and angina,” she says. “However, many of these women have ischemic heart disease and are at high risk for a heart attack.”

Pain may be similar to that of people with blocked arteries, but the plaque may not show up on diagnostic tests, adds Fielden.

## Get more specifics

ED nurses need to be educated on the WISE study’s findings, says Adam.

“Many ED nurses who work triage are taught to just ask quick, simple questions in order to keep the floor going,” she says. “So unless the patient complains of chest pain, they usually do not get an immediate ECG.”

Ask questions that will prompt patients to be more specific, especially when they complain of pain that it is between the nipple line and the pelvis area, advises Adam. “Nurses also need to get a quick history of the patient, to see if he or she has any predisposing factors,” she says.

Younger women also are presenting with chest pain with indications of coronary artery disease (CAD), notes Fielden. “Women with metabolic syndrome or Type 2 diabetes are at risk,” she says. “These women have elevated blood pressures, central obesity, high blood glucoses and insulin resistance, and hypercholesterolemia.”

African-Americans also are more at risk for CAD than Caucasians, and family history is important for everyone, says Fielden. “Pre-menopausal women with elevated systolic blood pressures and/or pulse pressures are also at risk for CAD,” she says.

You must evaluate women with chest pain differently than the way you evaluate men, says Fielden. Women are more likely to experience atypical symptoms such as extreme fatigue, sleep disturbance, shortness of breath,

## EXECUTIVE SUMMARY

Women often come to the ED with atypical symptoms of ST-elevation myocardial infarction (STEMI), and they may have clear coronary arteries upon cardiac catheterization.

- Even if arteries are not completely blocked, patients may have pain.
- Only about 50% of women with STEMI present with chest pain.
- Symptoms include extreme fatigue, sleep disturbance, shortness of breath, back pain, upper abdominal pain, and nausea with or without vomiting.

## SOURCES

For more information about women with atypical heart attack symptoms, contact:

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back pain, upper abdominal pain, and nausea with or without vomiting, she explains.

“Women who do have typical symptoms such as chest pain or discomfort and diaphoresis are significantly associated with acute coronary syndromes. Women have more adverse outcomes as compared with men,” says Fielden. “However, only about 50% of women present with chest pain.”

Both elderly women and men may present with atypical symptoms such as syncope or shortness of breath without anginal pain, adds Fielden.

As for cardiac biomarkers, men are more likely to have elevated CK-MB and troponin levels, and women are more likely to have elevated C-reactive protein and brain natriuretic peptide (BNP) levels, says Fielden. “If your ED does not include BNP as a lab or bedside test, it may be useful to add this to the initial cardiac markers,” she says.

In Cleveland Clinic’s ED, women 50 or older with any of these symptoms or history get a rapid ECG:

- chest pain or atypical pain such as upper abdominal or back pain;
- persistent heartburn;
- nausea, with or without vomiting;
- new onset fatigue;
- diabetes;
- post-menopausal.

At Spartanburg Regional, patients get an ECG within 10 minutes or less and the results immediately are shown to the physician for review and orders. “Our ED nurses work very hard to ask appropriate questions for the atypical woman chest pain patient,” says Adam.

Fielden says triage assessment for women who present with atypical symptoms should include:

- evaluation of chest pain, blood pressure, and pulse pressure;
- review of medications to see if she is on an

antihypercholesterol drug such as a statin or hormone replacement therapy;

- review of medical history including diabetes, family history, and menopause status;
- questions about cigarette smoking.

“Any ‘yes’ answer should initiate your chest pain protocol, including ECG and cardiac markers,” she says.

## Reference

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## Don’t miss carbon monoxide poisoning: Screen patients

### *Misdiagnoses are common*

When a group of guests at a motel in Ocean City, MD, were brought to an ED with headaches and nausea, they were treated for food poisoning — but a carbon monoxide (CO) leak was the actual cause of their symptoms. The leak went undetected for several hours, and two deaths occurred.

A recently published study found that only 44% of acute care hospitals in the Pacific Northwest had an arterial blood gas machine with a CO-Oximeter on site to measure carbon monoxide levels in the blood.<sup>1</sup> The equipment costs approximately \$40,000 and can be obtained from Westlake, OH-based Radiometer America, Tarrytown, NY-based Bayer HealthCare, East Walpole, MA-based Ciba-Corning Diagnostics, and Alameda, CA-based Roche Diagnostics. There are more than 40,000 ED visits for carbon monoxide poisoning annually, but

## EXECUTIVE SUMMARY

A new screening tool can be used at triage to screen for carbon monoxide poisoning.

- Patients may have unrelated complaints.
- Carbon monoxide poisoning often is misdiagnosed as influenza, food poisoning, or a migraine headache.
- If levels are elevated, ask patients about possible exposure to carbon monoxide.

## Ask these Questions if You Suspect CO Poisoning

### Patients with CoHb levels from 2%-5%:

- Do you smoke?
- How much do you smoke?
- When did you last smoke?

### Patients who do not smoke and have COHb over 3%:

- What is your occupation?
- Do you work with industrial solvents or paint removers?
- How do you heat your home?
- Do you use a space heater at home?
- Have you been using a charcoal grill at home?
- Do you use gasoline-powered tools such as mowers, snow blowers, chainsaws, or weed trimmers?
- Have you had any recent exposure to exhaust fumes?
- Have you had any recent exposure to a fire?
- Does your home have a chimney?
- Have you been on a motorboat?
- Have you recently gone camping and used a gas stove?
- Are there any other family members, roommates, or co-workers with the same symptoms?

Source: Rhode Island Hospital, Providence.

At Rhode Island Hospital in Providence, ED nurses screen all patients at triage with the RAD-57. “We use it as a screening tool,” says **Bruce Gillard**, RN, assistant clinical manager of the ED. “It’s just like a pulse oximeter: We’re talking about seconds, and you get a level.”

Nurses document the patient’s carbon monoxide level on the chart for the physician to review. “If somebody has a level of 1, that’s fine; and if someone is a smoker, the level may be a little higher. But if somebody comes back with a 10 or 13, there may be another reason for that, and we will need to ask more questions,” says Gillard.

For example, patients with high levels are asked whether they have been working on a car in a confined space or using a space heater in the home. (**See checklist of questions used by ED nurses to assess carbon monoxide toxicity, left.**)

You might suspect carbon monoxide exposure if patients report symptoms such as headache and nausea, but the condition can be overlooked easily if patients don’t have these symptoms, Gillard explains. “Previously, we would draw a blood sample to acquire the carbon monoxide level on someone only when we were clinically looking at it to be elevated, such as if somebody was in a fire or smoke inhalation,” he says.

Several patients have come in with completely unrelated complaints and had elevated carbon monoxide levels detected by the screening, Gillard reports.

“We are finding an aberrant reading from time to time,” he says. In one case, a man came to the ED after a bicycle accident and ended up having a level greater

many cases go undetected because symptoms often are mistaken for influenza or a migraine headache.<sup>2</sup>

To quickly screen patients, a small but growing number of ED nurses are using handheld CO detectors. The Rad-57 Pulse CO-Oximeter, manufactured by Irvine, CA-based Masimo Corp., costs approximately \$3,000 and noninvasively monitors the level of carbon monoxide and methemoglobin in the blood for early detection and treatment.<sup>1</sup> The tool can be used to avoid drawing arterial blood gas levels for some patients. When two boys aged 3 and 7 were brought to the ED at Presbyterian Intercommunity Hospital in Whittier, CA, with smoke inhalation, the tool showed that one child had a carbon monoxide level of 8 that exactly matched the blood gas level. “So we decided not to get a blood gas on the 3-year-old because of that,” says **Joe Ball**, RRT, the respiratory therapist who cared for the boys.

Since ED nurses knew the result was accurate because it had been confirmed with the first boy’s blood gas level, the blood gas didn’t need to be done for the second boy, which saved him a painful procedure.

## SOURCES/RESOURCE

For more information about screening for carbon monoxide levels, contact:

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than 10, which was confirmed by blood gas. “We found out the patient had been using a heater in the home that wasn’t ventilated appropriately,” says Gillard.

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1. Kao LW, Nanagas KA. Carbon monoxide poisoning. *Emerg Med Clin N Am* 2004; 985-1,018.
2. Hampson NB, Scott KL, Zmaeff JL. Carboxyhemoglobin measurement by hospitals: Implications for the diagnosis of carbon monoxide poisoning. *J Emerg Med* 2006; 31:13-16. ■

# Joint Commission asks about disaster planning

*Surveyors want to know lessons learned*

Based on the recent experience of a Massachusetts hospital that underwent its accreditation survey, you can expect your ED nurses to be asked about disaster planning during your next survey.

“They asked about our emergency preparedness plans and our relationship with our local fire department,” says **Audrey Mears**, RN, director of emergency services at Merrimack Valley Hospital in Haverhill, MA.” ED nurses told surveyors about their mobile Mass Decontamination Unit (MDU) provided by the state of Massachusetts and their joint training with local firefighters to learn how to set up and operate it. “We also have a good relationship with our Haverhill Emergency Management Agency and meet regularly with them,” says Mears.

At 5 a.m. on a Sunday morning, just before the survey by the Joint Commission on Accreditation of Healthcare Organizations, the hospital lost power and experienced generator failure. “We had to alert and

## EXECUTIVE SUMMARY

Accreditation surveyors asked ED nurses about their relationship with local disaster planning agencies.

- Surveyors critiqued the ED’s response to an internal power failure.
- Nurses were asked how the ED would communicate during a disaster.
- Surveyors liked the process for storing look-alike and sound-alike medications on separate shelves with bold labeling.

## SOURCES

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mobilize our disaster plan,” says Mears. This included placing the ED on “black divert,” which means the hospital is closed to all ambulance traffic.

The internal disaster had a major impact on the ED. “We had no power and only emergency phone service,” says Mears. “We utilized portable transport monitors that ran on batteries.”

## Where surveyors spent their time

The surveyors spent a lot of time evaluating the ED’s response to this disaster. “The surveyors were most interested in what we learned from the disaster and were quite pleased,” she says. “The first lesson we learned was that even with the best assurances and plans that anything is possible — including generator failure and backup generator failure.”

They asked nurses how comfortable they were with their emergency preparedness plans, whether they had exercised the plans, and whether they had a way to communicate within the hospital and with their community during a disaster.

During chart review, they looked for the patient’s vital signs and pain assessment and looked at the physician’s documentation for the patient’s condition at discharge. “They asked about patient flow from presentation to triage to inside the care area,” says Mears.

The surveyors asked about medication storage and what measures had been taken to prevent errors from look-alike and sound-alike medications.

**Carol Warren**, an ED nurse who was interviewed by the surveyors, gave the example of the sound-alike drugs dopamine and dobutamine. “Our nurses initiated separating these drugs, as they were originally stored side by side, and put them on separate shelves with improved bold labeling,” Warren says. “This was well received by the surveyors.” ■

# Don't miss patients at risk for falling in your ED

*Different patients are at risk in the ED*

When ED nurses at Methodist Hospital in Indianapolis performed a literature search on fall risk, they were disappointed.

"There is not a lot of information on falls in acute care settings like emergency departments," says **Mary Ross**, RN, ED nurse. It is difficult to identify who is at risk for falls in the ED, she adds. "There is no benchmark to compare the number of falls we have had in our ED to other EDs across the country."

Nurses decided to do their own research and looked at all of the falls in the ED over the past two years. "Our hope is that with our study we will be able to have a better perspective on who is falling in our ED," Ross says. "We can then come up with an action plan to prevent falls."

## **ED falls: Younger and impaired**

ED falls were compared to falls in the inpatient setting, using the Hendrich 1:1 Fall Risk Model. The findings were surprising: The ED patients often were younger than the inpatients who fell and often had alcohol and drugs in their system, says Ross.

"We found that the patients that are falling in the ED at Methodist are not the same population of patients that fall on the inpatient units," says Ross. "Our fall patients are unique, and I doubt that we are different from other EDs across the country."

To reduce fall risk in your ED, do the following:

- **Assess each patient.**

At Trident Medical Center in Charleston, SC, every patient is assessed for fall risk on admission to the ED after any diagnostic treatment or after medications

### *EXECUTIVE SUMMARY*

ED patients at risk for falling often have drugs and alcohol involved and may be younger than inpatients who are at risk for falling.

- Post signs in treatment rooms on ways to prevent falls.
- Remind at-risk patients to ask for assistance before getting off stretchers.
- Include pediatric patients in your assessment.

## **Follow these steps to protect children from falls**

These are the steps taken to protect children at high risk for falls at Franciscan Skemp Healthcare-La Crosse (WI)'s ED:

- Nurses document "high" for fall risk assessment on the patient record.
- Parents or guardians are instructed to remain in the exam room with the pediatric patient at all times.
- Parents are encouraged to hold infants and small children or have them sit in a chair rather than placing them on a cart, except for examination and/or treatment.
- Both side rails are raised whenever a pediatric patient is on a cart, except during examination and treatment.
- Ancillary personnel such as security, a social worker, or volunteer are utilized as needed to monitor patients.
- Patient and family are encouraged to use the call light for assistance. ■

have been given, says **Mindi Huckabee**, RN, CEN, director of emergency services

"We put in process an educational program on the risk of falls," she says. "This is mandatory training for all ED nurses. They go through a self-study module and take a test for competency."

Each room has a sign posted informing patients and family members of ways to prevent falls in the ED, says Huckabee. (**See wording of sign on p. 129.**)

Most falls involve patients who are intoxicated with drugs or alcohol or have not asked for assistance getting off stretchers, says Huckabee. "All high-risk patients should be told to ask for help prior to getting off the stretchers," she adds.

If a patient is identified as a fall risk, an orange bracelet is placed on the patient and an orange magnet is placed outside the patient's door. There are no identifying marks on the bracelet or magnet to protect the patient's privacy, adds Huckabee.

"We have very few falls in our ED," says Huckabee. "We attribute this to the education program for the staff and the education that is provided for both the patients and their family members."

- **Don't overlook children.**

At Franciscan Skemp Healthcare-LaCrosse (WI),

ED nurses classify all patients older than the age of 5 as either “high risk” or “low risk” and all children younger than age of 6 are classified as “high risk,” says **Patricia Formanek**, MSN, CEN, education coordinator for the ED.

“There is a tendency to think of the elderly first when you are developing a falls prevention program,” says Formanek. “Ours did not include a special section on pediatrics when it was first released, and the pediatric nurses asked, ‘What about our patients?’”

Even if the parents are present, they may be distracted by the illness or injury that brought their child to the ED and not focusing on fall prevention, says Formanek. “The ED may not be a familiar environment for them, and they may need assistance in keeping their child safe from falls,” she explains. (See the steps taken to prevent falls in children, p. 128.)

- **Share results with inpatient nurses.**

ED nurses at Franciscan Skemp send the fall assessment screening tool with the faxed report to the floor, so admitting nurses can select a safe place on their unit for high-risk patients. “If a patient is considered high risk, a green arm band is placed on the patient prior to their transport from the ED for diagnostic tests, thus alerting all who provide services to the patient that they are high risk,” says Formanek. ■

## SOURCES

For more information on preventing patient falls in the ED, contact:

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- **Mindi Huckabee**, RN, CEN, Director of Emergency Services, Trident Medical Center, 9330 Medical Plaza Drive, Charleston, SC 29406. Telephone: (843) 797-4104. Fax: (843) 797-4972. E-mail: mindi.huckabee@HCAhealthcare.com.
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## Sign in ED targets prevention of falls

Here is the sign posted in treatment rooms at Trident Medical Center in Charleston, SC, to inform ED patients about fall prevention:

“In an effort to provide a safe environment for our patients, we have developed plans to recognize conditions that could lead to injury as well as things we can do that may help prevent falls.

As a health care team, we know that some conditions make you more at risk for falls. Some of these conditions are chronic medical conditions, medications, changes in environment, and altered mental status.

While in the emergency room, it is important to follow the directions of the staff and to help us maintain an environment that is safe and conducive to healing. Below are some of the things that both the health care team, you as a patient, and your family and visitors can do. If you have concerns about potential for falls, please discuss with your nurse or other appropriate health care provider.

- Use your call bell to request help from the staff.
- Request assistance before getting up if you are unsteady, dizzy, or unsure of your ability to walk or move about safely.
- Wear nonskid footwear. Non-skid slippers are available.
- If you use a cane, walkers, or crutches, please inform the staff.
- If you should spill something, please request assistance in making sure it is cleaned up quickly.
- As a family member or visitor, please let the nurse know if you note changes that require special monitoring.
- Family members and visitors are important members of the health care team. Your assistance in keeping the patient safe is appreciated.
- To monitor our patients, orange armbands and door magnets are used to alert all members of the health care team that a patient may be a risk for falling. Please talk with the nurse if you have questions.” ■

## Report will revamp ED care of pediatric patients

The reports in the Institute of Medicine (IOM)’s *The Future of Emergency Care* series validate what many ED nurses have known for a long time: Overcrowding, boarding, diversion, long waits to be seen, inadequate staffing, and inconsistent competency levels all contribute

For more information on the Institute of Medicine report, contact:

- **Mary Jagim**, RN, BSN, CEN, FAEN, Internal Consultant for Pandemic and Emergency Preparedness, MeritCare Health System, 801 Broadway N., Fargo, ND 58122. Telephone: (701) 234-4893. E-mail: mary.jagim@meritcare.com.

Free summaries of all three reports in the Institute of Medicine's The Future of Emergency Care series are available on-line. The full reports include *Emergency Medical Services at the Crossroads*, *Emergency Care for Children: Growing Pains*, and *Hospital-Based Emergency Care: At the Breaking Point*. Go to [www.nap.edu](http://www.nap.edu) and click on "Health and Medicine," "Healthcare and Quality," and scroll down to the titles.

to a potentially hazardous patient environment. "Add to that the increasing mental health, alcohol, and substance abuse special needs populations which have a potential for violence toward other patients and staff," says **Mary M. Jagim**, RN, BSN, CEN, FAEN, consultant for pandemic and emergency preparedness for MeritCare Health System in Fargo, ND, and IOM committee member.

The IOM's *Emergency Care for Children: Growing Pains* report found that only 6% of EDs had all the necessary supplies for pediatric emergencies. To improve pediatric care, the report calls for the following:

- **Have appropriate equipment for children.** EDs often are lacking airway management and resuscitation supplies, says Jagim. She recommends using the Broselow system, using defibrillators with appropriate pediatric accessories, and implementing medication administration guidelines for children.

- **Ensure that staff are competent to care for pediatric patients.** You should have appropriate training, such as the Emergency Nurses Association's Emergency Nursing Pediatric Course, Pediatric Advanced Life Support certification and demonstration of competency in pediatric sedation, advises Jagim.

- **Pay attention to pediatric needs during disaster planning.** "There must be special considerations for families and for when children are separated from parents or lose parents," says Jagim. "You also need pediatric sized-ventilators and surge capacity specific to pediatrics. Children require different supplies, different equipment, accommodation of their families, or supporting the children if their family members are ill or have died." ■

## Stop errors with bedside reports at change of shift

*Practice keeps nurses and patients informed*

**D**angerous mistakes made by ED nurses often occur during patient "handoffs" at change of shift — and accreditation surveyors will want to see that you have a system in place to address this potential problem. A Joint Commission on Accreditation of Healthcare Organizations' National Patient Safety Goal, which became effective Jan. 1, 2006, requires a standardized approach for handoffs with an opportunity for staff to ask and respond to questions.

Bedside reporting is the most effective way to communicate at change of shift because it involves the patient, says **Staci Sutton**, RN, BSN, TNS, emergency services manager at OSF St. Joseph Medical Center in Bloomington, IL. ED nurses use a handoff tool, which is laminated and put on the inside of every ED chart. "It's definitely a culture change," says Sutton.

When the ED began using topical anesthetics for all intravenous lines, a contest was successful in getting nurses used to that practice change — so the same strategy was used again, says Sutton. "Nurses had to sign up on the board at the end of their shift to report how many patients they had given bedside report to," she says. The two nurses with the highest number were given gift certificates to shopping malls or restaurants.

The new process has caught missed doses and procedures that nurses assumed were done but actually had not been, adds Sutton. "Several radiology procedures have been caught that were thought by the previous shift to be completed. During the handoff, nurses determined with patient involvement that the procedure had not been done or labs had not been drawn," she explains.

At Osceola Regional Medical Center in Kissimmee, FL, ED nurses were receiving complaints and incident reports because patients were being transferred to the

### EXECUTIVE SUMMARY

By giving report at the patient's bedside at change of shift, errors can be dramatically reduced

- Missed doses and procedures are identified.
- Patients are more satisfied because they are informed.
- If something wasn't charted, the oncoming nurse asks if it was done.

## SOURCES

For more information on bedside reports at change of shift, contact:

- **Becky Roberge**, RN, Emergency Department, Mercy General Hospital, 4001 J St., Sacramento, CA 95819. Telephone: (916) 733-6250. E-mail: [Becky.Roberge@chw.edu](mailto:Becky.Roberge@chw.edu).
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floor without the proper orders carried out, such as a stat consultation not being called, says **Michelle Tracy**, RN, MA, CPN, CEN, clinical educator for emergency services. "In another case, a patient had a missing armband and was sent to the floor without it," says Tracy. "It was corrected after arrival to the floor but could have resulted in a negative outcome."

Bedside report at shift change was implemented to hold the previous shift accountable for their care and to help the nurse that is coming on shift to address any issues, concerns, and to get a better feel for the patient.

"The nurse brings the chart into the patient's room and gives report on the patient," says Tracy. "Of course anything sensitive would not be discussed in the room, and we would follow [Health Insurance Portability and Accountability Act] guidelines if they had visitors in the room."

At change of shift, both nurses check the following items:

- The patient's chart is complete.
- Drips are running at the correct rate.
- Cardiac monitor alarms are on with correct limits set and are communicating with the central station.
- The patient has armbands and allergy bands if appropriate.
- The patient's side rails are up, and the call light is within reach.
- Orders are carried out, signed off, and documented.

"This has really helped with the morale between the two shifts, because they are no longer blaming each other and are working together to guarantee patient safety," says Tracy. "It has also decreased potential patient safety issues that have arisen."

The "gurney side report" given by ED nurses at Mercy General Hospital in Sacramento, CA, serves two purposes: It informs the oncoming nurse, and it keeps the patient informed. "One of the things ED patients are most dissatisfied with is that they are not kept informed and they don't know what they are waiting for," says **Becky Roberge**, RN, the ED's clinical nurse educator. "This involves the patient in the plan of care."

The outgoing nurse introduces the patient to the new nurse, and the two nurses review the previous orders and treatments. The report includes the patient's name, age, chief complaint, significant medical history, allergies, any learning or social needs, and any abnormal assessment findings. "It's a double-check to make sure things have been done," says Roberge. "If the night shift nurse is tired, and a patient comes in at 6 a.m., the process prevents things from being missed, such as urine specimens not being sent."

It's also a way to make sure documentation is complete at the end of the shift, because you have two eyes looking at the chart instead of one, says Roberge. "If something wasn't charted, the new nurse asks if it was done," she says. ■

## 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 **December** issue, you must complete the evaluation form provided in that issue and return it in the reply envelope provided in order to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you. ■

## COMING IN FUTURE MONTHS

■ Significantly cut delays for AMI

■ Dramatically improve care of elderly trauma patients

■ Strategies for pharmacy review of ED medication orders

■ Don't miss pediatric patients at risk for sepsis

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## 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.

9. Which of the following is recommended by the new American Heart Association guidelines?
  - A. Cardiopulmonary resuscitation (CPR) should be interrupted while the defibrillator is charging.
  - B. Perform CPR only until definitive treatment occurs.
  - C. Continue CPR as continuously as possible.
  - D. Early defibrillation is a priority over CPR.
10. Which is true regarding women and myocardial infarction, according to Nina M. Fielden, MSN, RN, CEN?
  - A. Women may show clear coronary arteries upon cardiac catheterization.
  - B. Women won't present with chest pain unless arteries are blocked.
  - C. Your evaluation of women and men should be identical.
  - D. Women are more likely to have elevated troponin levels than men.
11. Which is true regarding assessment of carbon monoxide poisoning, according to a recently published study?
  - A. All patients present with severe headache.
  - B. Symptoms often are mistaken for influenza or a migraine headache.
  - C. Elevated carbon monoxide levels always are symptomatic.
  - D. Screening should be done only for known smoke inhalation cases.
12. Which is true regarding assessing ED patients for fall risk, according to research done by nurses at Methodist Hospital?
  - A. The same type of patients were at risk in the ED and on inpatient units.
  - B. ED patients who fell were older than inpatients who fell.
  - C. ED patients who fell often had alcohol or drugs on board.
  - D. ED patients are at lower risk for fall injury compared with other units.

**Answers: 9. C; 10. A; 11. B; 12. C.**

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