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Will a drug error harm the next child you treat? Study: It happens to 1 in 3

ED medication mistakes are surprisingly common

Medications given that weren't ordered. Medications ordered, but not given. Drugs given for the wrong condition and incorrect dosages. These were the most common mistakes made when 177 critically ill children were treated in California rural EDs, according to a study that identified 84 medication errors. Researchers found that 69 (39%) had at least one medication error, and 11 could have been harmed.¹

Because 41% of children are treated in rural EDs, this is a big concern for ED nurses, says **Madan Dharmar**, MD, one of the study's authors and an assistant researcher in the University of California — Davis Department of Pediatrics.

Nurses in rural and community EDs treat fewer acutely ill children and typically have less training and expertise in pediatric care than nurses in larger EDs or children's hospitals, he says. "The doctors and nurses that work in these EDs are excellent health care providers — as good, if not better, than many of the doctors and nurses at the Children's Hospital where I work," says Dharmar. "It's just that they do not have the resources available to them that I do: pediatric pharmacists, pediatric nurses, and expensive medication dispensing machines."

Community EDs see 20 million children annually, one of every four ED patients is a child, and 96 out of 100 infants make at least one visit to an ED in their first year of life.²

"The numbers are only going to increase. Children's hospitals are overwhelmed, so more people are seeking services in the community," says **Jeanne**

EXECUTIVE SUMMARY

Of 177 children treated in rural EDs, 39% had at least one medication error, according to a just-published study. Drug errors included incorrect dosages, the wrong administration route, and medications given that weren't ordered.

- Use protocols for high-risk and high-alert medications.
- Limit concentrations of oral antibiotics.
- Ask pharmacists to answer questions about medications.

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Venella, RN, MS, CEN, a senior nurse consultant at Orlando, FL-based Blue Jay Consulting who specializes in ED care. Venella is a former emergency nurse at Children's Hospital of Philadelphia.

Medication errors in children are "always a concern, regardless of the size of your ED," says **Pamela Walker**, PharmD, BCPS, clinical coordinator for ED pharmacy services at University of Michigan Hospital in Ann Arbor. "Medication errors, many times, are really system-related issues in disguise. They happen to the best of us," she says. (See related story on p. 99 on The Joint Commission's recommendations to prevent pediatric medication errors.)

To prevent pediatric medication errors in your ED, do the following:

- **Stop blaming individuals.**

Unfortunately, errors and near-misses made by ED nurses often go unreported due to fear of reprisals, says Walker. "This could set up the next person that

administers that medication and above all the patient, if we don't do something about it," she says. "We need to stop blaming the persons associated with a medication error and focus on what failed. Is it a computer issue? Is it a storage issue?"

The fix may be as simple as rearranging your ED's automated medication dispenser if there are two similar-looking oral solution bottles stored too close to one another, says Walker.

Poll nurses anonymously to learn which errors they're most worried about, and invite ED nurses to share their own near-misses to give a "face" to the problem, Walker advises. "Strive for active group participation with a light tone, by incorporating a Jeopardy theme or something similar," she says. "You'll get great feedback. Nurses will bring up other potential medication errors that no one had thought of."

- **Add specific instructions for high-risk and high-alert drugs to your ED's protocols.**

For neuromuscular blocking agents, concentrated electrolytes, insulin, cytotoxic medications, and heparin, specify dosages, adverse events, contraindications and monitoring parameters, says Walker. For example, ED nurses give a bolus of insulin prior to infusion for adult diabetic ketoacidosis (DKA) patients, but this is not done for children because blood glucose drops much too quickly. "If the nurse isn't familiar with pediatric DKA, they could easily give the bolus. Then you have a risk for hypoglycemia and possibly cerebral edema," she says.

- **Limit sizes and concentrations of medications to avoid confusion.**

For instance, drug errors have occurred in children due to nurses giving the incorrect dosage of fosphenytoin, which comes in different vial sizes.³ Walker recommends having only one size in your ED of oral antibiotics offered in different dosing strengths, such as amoxicillin clavulanate, which is available in three concentrations.

- **Ask pharmacists to answer questions by pager, phone, or e-mail.**

"There is no such thing as a stupid question or a question that should embarrass," Walker says. "Everyone is there to help each other out."

Recently, an ED nurse asked Walker about potential reactions a child might have from fomepizole, including hypotension. When her patient did develop hypotension, the ED nurse recognized it as a probable drug reaction and quickly gave fluid boluses.

- **Use weight-based dosing charts.**

Post a laminated chart with standard dosage ranges of the top 25 drugs used for pediatric patients in your ED, Venella recommends. "That way, if someone orders 2,500 mg of amoxicillin instead of 250 mg, it will seem odd to you," she says.

Use the charts as a quick reference for medications

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with a high potential for injury, or high-acuity, low-volume events such as pediatric codes, says Venella. “It’s always a nerve-racking situation, and everybody is anxious,” she says. “Voices are raised, and you are dealing with medications that you are not as comfortable with.”

- **Use weight in kilograms, not pounds.**

To prevent confusion, don’t give a child’s weight in pounds until the weight in kilograms is documented, advises Venella. “If a child weighs 11 kg and the mother inadvertently asks you how much the child weighs, and you tell her, ‘About 23 lbs.’ it’s very easy to go to the computer entry system and type in 23,” she says.

At Boston Medical Center, ED nurses disabled the pound feature on their scales after a medication error occurred because a child’s weight in pounds was entered as kilograms. “When we weigh the child, the only number available now is the kilogram weight. This reduces confusion between pounds and kilos on the chart,” says **Maureen Cooper**, RN, BSN, an emergency nurse in the pediatric ED.

Never order medications based on the child’s age, adds Venella, since three 5-year-olds, for example, may have very different dosages. Instead, use the child’s actual weight. “If it’s not possible to weigh a child, it’s better to use the last documented weight instead of guessing,” says Venella.

- **Trust your gut instincts.**

“Don’t ever trust the prescriber,” says Venella. “If something seems out of range, you have to ask even the best. Anyone can make a mistake.”

When an ED nurse thought a gentamicin order was too high a dose for a baby with fever of unknown origin, she asked Walker’s opinion. “The nurse was right, and we worked together to get it decreased. It was a simple issue with an incorrect weight copied down,” says Walker.

If the nurse had given the dose as ordered, renal toxicity and ototoxicity could have occurred, says Walker. “Many times, the dose given in the ED will continue when the patient is admitted to the hospital,” she says. “If it hadn’t gotten caught, there was a real possibility that the incorrect dose could have continued until the baby was weighed.”

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1. Marcin JP, Dharmar M, Cho M. Medication errors among acutely ill and injured children treated in rural emergency departments. *Ann Emerg Med* 2007; 50:361-367.
2. National Academy of Sciences, Institute of Medicine, Committee on the Future of Emergency Care in the United States Health System. *Emergency Care for Children: Growing Pains*. Washington, DC; 2007.
3. Institute for Safe Medication Practices. *ISMP Medication Safety Alert*. April 10, 2008. ■

New recommendations for pediatric medication safety

EDs have greater chance of mistakes

Medications specifically made for adults and given to children put young patients at greater risk for drug errors, according to a *Sentinel Event Alert* from The Joint Commission. (*Editor’s note: To access the*

EXECUTIVE SUMMARY

Medication mistakes are more likely for pediatric patients in the ED than other units because of volume, more handoffs, and changing acuity levels, according to The Joint Commission, which issued a *Sentinel Event Alert* to prevent drug errors in children.

- Assess for unsafe labeling and packaging of medications.
- Perform a double-check process for all high-risk drugs.
- Have pharmacy prepare intravenous medications and drips in a single-dose form.

Continued on page 101

RSI DRUGS - NEWBORN 3 kg

Drug & Concentration	Dosage	Patient Dosage	Amount
ATROPINE 0.1mg/ml	0.02mg/kg min dose 0.1mg max dose 1mg	0.1mg	1ml
LIDOCAINE 10mg/ml	1.5mg/kg	4.5mg	0.45 ml
FENTANYL 50mcg/ml	3mcg/kg	9mcg	0.18 ml
ETOMIDATE 2mg/ml	0.3mg/kg	0.9mg	0.45 ml
MIDAZOLAM	0.2mg/kg	0.6mg	
SUCCINYLCHOLINE 20mg/ml	2mg/kg	6mg	0.3 ml
VECURONIUM 1mg/ml	0.2mg/kg	0.6mg	0.6 ml

Stanford University Hospital
Pediatric Emergency Department

Paula Miller RN, CCRN
12/06

Source: Stanford (CA) University Hospital.

Alert, go to www.jointcommission.org. Under “Sentinel Event,” click on “Sentinel Event Alert,” then “Issue 39 — April 11, 2008: Preventing pediatric medication errors.”)

Children are at higher risk for medication errors in the ED than other units because of volume and throughput pressures, according to **Peter Angood**, MD, vice president and chief patient safety officer for The Joint Commission. “Also, acuity of care shifts patient by patient, and there are a lot of handoffs, including the fact that different doctors and nurses will see the patient during their ED stay,” he says. “All of those components set up EDs for potential errors.”

Here are The Joint Commission’s recommendations:

- Require prescribers to write out how they arrived at the proper dosage, with the calculation double checked by a pharmacist, nurse, or both.
- Use pediatric-specific medication formulations and concentrations when possible.
- Weigh all pediatric patients in kilograms.
- Do not give high-risk drugs until the patient has been weighed, unless it is an emergency situation.

Improper weight-based order writing is a common source of pediatric drug errors in EDs, according to Angood. “Most of the time, patients can be weighed, unless it’s a true emergency,” he says. “This should be done at triage. That’s the easiest and simplest way to get it done.”

Improper packaging and labeling of medications is another danger for pediatric ED patients, warns Angood. “Specific policies should be in place to protect patients by making sure medications are stored in ways that the error can’t occur,” he says.

To comply with The Joint Commission’s National Patient Safety Goal 3C, your ED must review annually for look-alike, sound-alike medications. During that process, it’s an ideal time to assess for labeling and packaging that may create unsafe situations for children, says Angood. “Those identified medications could then be stored in different locations from other medications,” he says.

At Stanford (CA) University Hospital/Lucile Packard Children’s Hospital, two ED nurses perform a double-check for all high-risk medications: heparin, excluding prefilled flushes; insulin; continuous intravenous (IV) narcotic drips; vasoactive IV drips; and potassium chloride. Before the medication is given or the drip is hung and initiated, both nurses check the calculation of the dose and document that the dosage is correct, says **Paula Miller**, RN, CCRN, pediatric educator/coordinator for the ED.

Miller created weight-based emergency medication sheets for cardiopulmonary resuscitation (CPR) and rapid sequence intubation medications, based on Pediatric

SOURCE

For more information on complying with the recommendations in The Joint Commission’s *Sentinel Event Alert*, contact:

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Advanced Life Support (PALS) guidelines. Each sheet lists the drug concentration, route, dosage, patient dose, and amount for each medication by weight. **(See the ED’s chart for rapid sequence intubation drugs for a newborn weighing 3 kg on p. 100.)**

When a child requires rapid sequence intubation or emergency medications, the appropriate sheet for the child’s weight is placed in a prominent location in the room.

IV medications and drips are prepared by the hospital’s pharmacy in a single-dose form, adds Miller. “Because all pediatric drips are calculated by weight, our pharmacists mix all of the vasoactive and controlled substance drips to provide additional safeguards,” she says. “Adult premixed vasoactive drips are only used if the child weighs 40 kg or greater.”

The pharmacist also mixes up and dispenses most medications that must be reconstituted or diluted to a specific concentration before being given. “Errors can occur when the medication is reconstituted or diluted incorrectly or the concentration is not correct,” says Miller. “A dose that is too little or too much, or too dilute or too concentrated could result.” ■

Update on controversy over ED nurses sedating patients

Appropriate training and competencies are key

It seems like a no-brainer: When ED nurses perform procedural sedation, patients get pain relief quicker. However, several organizations, including the American Society of Anesthesiologists and the American Association of Nurse Anesthetists, have approached state nursing regulators looking to put a stop to this practice.

“There is a movement to stop nurses from administering sedation to acutely ill and injured patients in our

EXECUTIVE SUMMARY

Organizations representing anesthesia providers have contacted state nursing regulators trying to restrict the ability of emergency nurses to perform procedural sedation. Emergency nurses argue that ill and injured patients will suffer as a result.

- The ED nurse administering the sedation should not be responsible for anything other than monitoring the patient's airway and vital signs.
- ED nurses should receive training in basic airway management, recognition of complications, side effects, and contraindications.
- Nurses should be certified in cardiopulmonary resuscitation (CPR), Advanced Cardiac Life Support (ACLS), and Pediatric Advanced Life Support (PALS).

EDs," says **Donna Mason**, RN, MS, CEN, immediate past-president of the Emergency Nurses Association (ENA) and senior nurse consultant with Orlando, FL-based Blue Jay Consulting, specializing in ED processes. Mason is former nurse manager of adult emergency services at Vanderbilt University Medical Center in Nashville, TN. "The ENA has taken the lead to fight this absurd practice," she says.

The issue at hand is whether medications such as propofol and etomidate can be given safely by individuals, such as emergency nurses, who have not been trained in administration of general anesthesia. **Mary M. Jagim**, RN, BSN, CEN, FAEN, consultant for pandemic and emergency preparedness for MeritCare Health System in Fargo, ND, says, "The primary concern with those medications is the risk that the patient may slip into a deeper level of sedation than is intended, with a potential impact on the patient's airway."

However, there is an extremely low number of these incidents, and the patients required minimal support, says Jagim. "Propofol has a very short half-life and that is part of the reason it is so popular," she says.

Even so, some state boards of nursing don't allow ED nurses to administer the drugs, and some of those that do are taking a second look at the issue, says Jagim. "The issue may not have been previously discussed, but it is now coming to the board of nursing for a decision, and so the debate begins," she says.

Molly A. Evans, RN, BSN, CEN, ED manager at University of Colorado Hospital in Denver, says that if ED nurses were not able to give procedural sedation, "it certainly would be a disservice to patients involved

in a traumatic painful injury. It is unusual to have a day in the ED that someone doesn't benefit by getting procedural sedation."

This means that ED nurses are able to do the procedure without coordinating with the OR and waiting for the on-call specialist to come in, says Evans. "We can take care of the situation right away. It makes it less expensive and much more timely for the patient's comfort," she says. "Also, sometimes the sooner you get something fixed, the less likely you will have neurovascular complications. For example, a dislocated joint could be injuring nerves or vessels. Quick treatment could minimize the damage."

If ED nurses aren't allowed to perform the procedure, then two ED physicians are required to be at the patient's bedside, which could leave the ED short-staffed. "Or if anesthesia staff are going to administer the propofol, they are often not available right away," says Jagim. "This causes delay in patient care and increases the patient's discomfort."

If a patient is acutely injured in the middle of the night, there is no time to wait for an anesthesiologist to come in from home to perform procedural sedation, argues Mason. "A patient could wait as long as an hour. If that is my loved one, it is way too long to watch them suffer."

Give appropriate training

Mason believes strongly that ED nurses should have the right to give procedural sedation. "With that being said, nurses have to be trained, experienced, and competent to give these drugs," she says.

At a minimum, ED nurses should receive training in basic airway management, recognition of complications, the combination of drugs and their actions, administration issues, side effects, and contraindications, says Mason. In addition, nurses should be certified in cardiopulmonary resuscitation (CPR), Advanced Cardiac Life Support (ACLS), and Pediatric Advanced Life Support (PALS), in the event the patient needs to be resuscitated, she says.

In addition, the ED nurse has to be solely dedicated to administering the medications and monitoring the patient, says Evans. "They have to evaluate the patient before, during, and after the procedure," she says. "They can't leave their monitoring of the patient to get an item that may be needed or assist with the procedure."

Little room for error

Nurses must be very aware of appropriate dosages and the effects of medications, including special populations such as pediatric patients, because small dosages leave little room for error, says Evans. "Also, many times elderly patients do not require what is a usual dose, or

SOURCES/RESOURCE

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A consensus statement from the Emergency Nurses Association and other organizations outlines the benefits of ED nurses using procedural sedation for patients undergoing invasive or painful procedures. To read the consensus statement, go to www.ena.org. Under the "About ENA" heading, click on "Position Statements," and "Procedural Sedation Consensus Statement."

they can react differently than predicted," she says.

There always is a possibility that your patient will require physiological support, whether that means intravenous fluids or respiratory support, so be prepared for "the worst-case scenario," says Evans. "It is infrequent that a patient undergoing procedural sedation will have a complication, but being fully prepared and competent is essential." ■

Don't assume your patient is too young to have an MI

A 30-year-old man complained of chest pain to ED nurses at Cleveland Clinic and reported no history of cardiac disease or hypertension, but he said he was a current smoker.

"He said he rehabbed houses for a living and thought it was musculoskeletal pain," says **Nina M. Fielden**, MSN, RN, CEN, clinical nurse specialist for emergency and critical care services. "His forehead showed only a very fine perspiration." Vital signs

indicated a heart rate of only 32, however.

The man was immediately given an electrocardiogram (EKG), which revealed an inferior wall myocardial infarction (MI). "Aspirin was given and heparin started. No beta-blocker was given because of the low heart rate," says Fielden. "He was taken to the cath lab, with a door-to-cath lab time of 17 minutes."

If a patient younger than 45 has symptoms suggesting a possible MI, would you possibly overlook this diagnosis due to the patient's age? Patients under 45 actually comprise 10% of MIs, according to a new study, which says risk factors are different for younger patients.¹

The youngest patients in the study, ages 18 to 45, had less diabetes, hypertension, and history of MI than older patients, and they were more likely to be male, nonwhite, current smokers, and obese. "Our chest pain guidelines require an EKG on anyone age 30 or older presenting with chest pain or other anginal symptom," says Fielden.

In addition, adolescent athletes should receive a cardiology consult when presenting with syncope, dyspnea, or dizziness with exercise, says Fielden. "Although sudden cardiac death is rare, they could have a form of structural nonatherosclerotic heart disease, congenital or acquired."

Regardless of age, ask all patients if they have a history of high blood pressure, heart problems, or diabetes and if there is current substance abuse including amphetamines or cocaine, advises **Jennifer Williams**, RN, BC, M-S CNS, CEN, CCRN, a clinical nurse specialist at Barnes-Jewish Hospital in St. Louis. "If they screen positive for any of those and they have cardiac complaints including chest pain, nausea, general abdominal pain, or fatigue in women, then we give them an EKG," says Williams.

Recently, ED nurses cared for a 34-year-old man who had started experiencing chest pain while playing basketball. "His only concerning past medical history was a grandparent with a history of a heart attack," says Williams.

EXECUTIVE SUMMARY

Younger myocardial infarction (MI) patients are less likely than older patients to have diabetes and hypertension, and they are more likely to be smokers and obese. Ten percent of MI patients are under 45.

- Give an electrocardiogram to any patient presenting with cardiac complaints.
- If adolescents present with dizziness or shortness of breath with exercise, arrange a cardiology consult.
- Ask all patients if they have a history of high blood pressure, heart problems, diabetes, or substance abuse.

SOURCES

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Nurses did an immediate EKG, which revealed an MI. The patient was immediately moved to the critical patient area and sent to the cath lab within 20 minutes.

Williams also cared for a 37-year-old MI patient who was a smoker with a family history of a parent having a heart attack. "Because the nurse receiving the call from EMS recognized that he was at higher risk due to family history and his smoking status, an EKG was done immediately and he proceeded to the cath lab," she says.

Reference

1. Anderson RE, Pfeffer MA, Thune JJ, et al. High-risk myocardial infarction in the young: The VALsartan in Acute myocardial infarction (VALIANT) trial. *Am Heart J* 2008; 155:706-711. ■

Study: Use this test for shortness of breath

Shortness of breath is a common complaint in the ED, but often is misdiagnosed, according to a new study of 592 patients.¹ For 185 patients, there was clinical indecision as to the correct diagnosis, and 103 of this group had acutely destabilized heart failure.

"When indecision is present, the effects extend well beyond the boundaries of the ED," says **James Louis Januzzi**, MD, one of the study's authors and associate director of the coronary care unit at Massachusetts General Hospital in Boston. "These patients tend to have longer hospital lengths of stay, more random diagnostic testing, and tend to do worse than patients in whom diagnostic uncertainty is not present."

Amino-terminal pro-B-type natriuretic peptide

SOURCE

For more information on amino-terminal pro-B-type natriuretic peptide testing in the ED, contact:

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(NT-proBNP) testing may help to determine if patients have heart failure, says Januzzi. "More routine NT-proBNP or BNP testing at the time of the first ED contact for dyspnea evaluation will reduce missed diagnoses, improve triage, and ultimately save lives," says Januzzi. Consider the following:

A very high NT-proBNP result, more often than not, indicates heart failure. However, this may also indicate pulmonary emboli, acute coronary ischemia, and various nonheart failure types of heart disease, including atrial fibrillation or aortic stenosis, says Januzzi.

A very low value of BNP or NT-proBNP generally excludes heart failure. However, the situations where that can be falsely low include mild heart failure, diastolic heart failure, or right heart failure, as well in very obese patients.

"If you are working in triage and shortness of breath is a complaint, an NT-proBNP or BNP is a valuable adjunct to evaluation, unless the patient is clearly asthmatic, or some other easily recognized diagnosis," says Januzzi. "And the sooner it is ordered, the better."

Reference

1. Green SM, Martinez-Rumayor A, Gregory SA, et al. Clinical uncertainty, diagnostic accuracy, and outcomes in emergency department patients presenting with dyspnea. *Arch Intern Med* 2008; 168:741-748. ■

Is your patient short of breath? Don't miss CHF

Appearances can be deceiving

A patient complaining of shortness of breath may "look good," but the history and pulse oximetry reading may tell a different story, warns **Angela Westergard**, RN, manager of emergency services at Mercy Medical Center in Oshkosh, WI.

"There is also the possibility that an inexperienced

EXECUTIVE SUMMARY

Suspect heart or lung problems for ED patients reporting shortness of breath. Even if a patient's symptoms developed over several days or noisy breath sounds are not present, the situation may still be life-threatening.

- Suspect congestive heart failure if patients report difficulty lying flat.
- Use standing orders for interventions to prevent deterioration.
- Always get a pulse oximetry reading and assess for cardiac arrhythmias and chest pain.

nurse could miss subtle cues," she says.

Patients often are able to compensate for their difficulties and don't appear in distress, notes Westergard. "But in reality, the situation can be ominous," she says. For example, a patient who is in status asthmaticus may not have noisy breath sounds because they are moving very little air, but this is a life-threatening situation that needs to be addressed immediately.

If a patient's condition developed over several days, the ED nurse may not take the time to assess for additional symptoms such as cardiac arrhythmias, chest pain, or other more acute problems, says Westergard. When a patient comes in complaining of shortness of breath, immediately think of heart or lung problems, says **Nancy Bennett**, MSN, RN, educator for the ED at Hospital of Central Connecticut in New Britain. "Our goal is to get the patient into a room ASAP, before they decompensate," she says.

Ask these questions at triage

Ask these questions at triage to determine if the patient is in congestive heart failure (CHF), says Bennett:

- How long have you been short of breath? When did it start, and what were you doing at the time?
 - Do you have heart or lung problems? "If the patient states he has COPD [chronic obstructive pulmonary disease], we ask if he has used his inhaler today and, if so, how many times," says Bennett.
 - Have you been in the hospital before for this?
 - What medications do you take?
 - Does the shortness of breath get worse when you do any physical activity? If so, what activity exacerbates it?
- "Some people have episodes where they're doing fine, but any kind of physical activity makes it harder for them to catch their breath," Bennett explains. "The fluid starts accumulating in the lungs, their air exchange is

inefficient, and they become more short of breath."

- Do you have any chest pressure, pain, or palpitations associated with the shortness of breath?
- Have you noticed any swelling of your feet, ankles, or lower legs?
- Have you had to use two or more pillows to sleep at night? "People in CHF usually have a hard time lying flat, so they raise themselves up to sleep," says Bennett.

At triage, nurses take an oxygen saturation level along with other vital signs, says Bennett.

"If the patient states they have COPD, we listen to their lung sounds," says Bennett. "If they state they have asthma and they're severely short of breath, we call our respiratory therapist for a stat breathing treatment if there's going to be some delay in getting them into an ED bed."

Patients are immediately put on a cardiac monitor and supplemental oxygen, either by face mask or nasal cannula, depending on their oxygen saturation level.

Nurses check the patient's lungs, check their fingers for capillary refill and color, obtain an electrocardiogram (EKG), insert an intravenous line, draw labs, and order a stat chest X-ray.

If pneumonia is suspected, blood cultures are drawn and a chest X-ray is obtained. Patients are asked if they're coughing and expectorating sputum and, if so, what color, Bennett says. They're also asked whether they have been running a temperature at home, she says.

First, do a quick "eyeball assessment" of your patient, says Westergard. "What does the patient look like? Is he or she able to speak and answer questions?" she says. "If the answer to these questions is that the patient appears to be in distress, he goes right back to a room for evaluation."

If the patient doesn't appear to be in distress, ask about past medical history, medications taken, what they were doing when the symptoms started, how long they have been short of breath, and whether they have other symptoms such as chest pain or ankle swelling, says Westergard.

If the pulse oximetry is over 90, the patient goes right back to a room, says Westergard. "If the level is over 90 and the ED is busy, the patient has a full set of vitals taken and a more thorough assessment is done at triage," she says. "If the vitals are of concern, the patient goes right back to a room."

Mercy's ED nurses also have standing orders for the following interventions, based on the patient's presentation:

- Obtain a pulse oximetry reading.
- Give two liters of oxygen per nasal cannula if the oxygen saturation level is less than 92%.
- Place a saline lock.
- Obtain a peak flow reading, if the patient is able to.

SOURCES

For more information about patients with shortness of breath, contact:

- **Nancy Bennett**, MSN, RN, Educator, Emergency Department, Hospital of Central Connecticut, New Britain. Phone: (860) 224-5900, ext. 2664. E-mail: nbennett@thocc.org.
- **Angela Westergard**, RN, Emergency Services, Mercy Medical Center, Oshkosh, WI. Phone: (920) 223-0567. E-mail: awesterg@affinityhealth.org.

- Give a single dose of ipratropium bromide per hand-held nebulizer.

- Order a chest X-ray.

“This can save several minutes when the ED physician is busy evaluating other patients and can help prevent the patient from further deteriorating,” Westergard says. “The earlier we can get the airway open and working, the better the outcome.” ■

Are you misjudging your culturally diverse patients?

Misunderstandings can be dangerous

A Hispanic 13-year old girl with abdominal pain is accompanied by her father, who offers to act as a translator. An Asian woman says she has severe pain, but her facial expression and body language appear calm and serene. An African-American woman is experiencing pressure across her chest, but only tells you that she has a feeling of dread.

EXECUTIVE SUMMARY

Failing to meet the needs of culturally diverse patient populations in the ED can result in patients being unsafely discharged.

- Patients may be stoic and minimize symptoms.
- Give a lecture and self-study to nurses on cultural diversity in health care.
- Use a pocket guide to obtain information on specific ethnic groups.

These are all situations that can result in a patient being discharged with a life-threatening injury, if you don't “cross the chasm that can exist across cultures,” warns **Kathleen Dracup**, DNSc, RN, dean of the University of California — San Francisco School of Nursing and former emergency nurse. “In the ED, every person who walks in is a stranger to you,” she says. “Building a sense of trust and rapport is all the more challenging when you are dealing with diversity of race, gender, or culture.”

If your patient tells you their symptoms in “a culturally defined way,” it can lead to the wrong diagnosis, says Dracup. For example, if the ED nurse comes from a Mediterranean culture where pain is displayed dramatically, a stoic patient's clinical presentation might not be taken seriously because the nurse is looking for thrashing around, facial grimaces, and other body language.

“If the ED nurse doesn't ask the right questions, they are going to frame the problem incorrectly,” says Dracup. “The patient may even be sent home — a disastrous consequence for a condition like acute coronary syndrome.”

To meet the needs of culturally diverse patients in your ED, do the following:

- **Be flexible in the way you communicate.**

When a large Arabic family was injured in an auto accident, the men in the family were wailing and throwing themselves on the beds of the injured patients, getting in the way of ED nursing care, recalls **Deborah A. Keim**, BSN, RN, MICN, educator for the ED at University of California — Los Angeles (UCLA) Medical Center. ED nurses determined that the elderly mother was the head of the family.

“We found that if we sent all information through her, we had a much easier time,” says Keim. “Once we figured out that the grandmother was the ‘go-to’ and calming force in this family, we were able to care for them unhindered.”

- **Give training and resources to nurses.**

“Cultural diversity is a big issue for us and many other EDs across the country. We are always looking to improve in this regard,” says Keim. “We have a very diverse patient population, and we expect our staff to be culturally competent.”

During orientation, ED nurses attend a lecture on healing practices in different cultures, given by one of the department's educators or managers. They also receive a packet on cultural diversity in health care with a self-study assessment to complete, written by a faculty member at UCLA School of Medicine.

ED nurses use a pocket guide to quickly obtain information on ethnic groups, including verbal and nonverbal communication, tone of voice, privacy,

SOURCES/RESOURCE

For more information on caring for culturally diverse patients in the ED, contact:

- **Kathleen Dracup**, DNSc, RN, University of California, San Francisco, School of Nursing, Phone: (415) 476-1805. Fax: (415) 476-9707. E-mail: kathleen.dracup@nursing.ucsf.edu.
- **Deborah A. Keim**, BSN, RN, MICN, Emergency Department, University of California — Los Angeles Medical Center. Phone: (310) 794-5823. E-mail: DKeim@mednet.ucla.edu.
- **Tina Quon**, RN, MSN, CNS, BC, Clinical Nurse Specialist, Division of Emergency Medicine, University of California — San Francisco Medical Center. Phone: (415) 353-1444. Fax: (415) 353-1799. E-mail: tina.quon@ucsfmedctr.org.
- **Culture & Clinical Care is a reference providing culturally appropriate health care** to 35 ethnic groups. The cost is \$33.95 plus \$8 shipping. To order, contact University of California — San Francisco Nursing Press. Phone: (415) 476-4992. Fax: (415) 476-2373. E-mail: Emily.Huang@nursing.ucsf.edu.
- **A report from The Joint Commission, *One Size Does Not Fit All: Meeting the Health Care Needs of Diverse Populations***, gives a framework for meeting the needs of culturally diverse patients. To download a free copy of the report, go to www.jointcommission.org/PatientSafety/HLC.

activities of daily living, food practices, symptom management including response to pain, birth and death rituals, family relationships, illness beliefs, and health practices. **(For ordering information, see resource box, above.)**

“We have it located in a central room so staff can use it for quick reference,” says Keim.

- **Utilize appropriate translation services.**

If a patient is unable to speak English, nurses at UCLA’s ED use telephone interpretation services. “If the patient presents in extremis, we try to get baseline information from them or the family. After lifesaving

CNE 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. ■

treatment, we prefer staff to utilize professional interpretive services,” says Keim.

At University of California — San Francisco Medical Center, a triage nurse recently used telephone translation services for a patient who spoke Cantonese and no English, and the nurse learned that he had been experiencing chest pain and nausea for three hours. An electrocardiogram was given immediately, which revealed that the man was having an acute myocardial infarction.

Tina Quon, RN, MSN, CNS, BC, clinical nurse specialist for the Division of Emergency Medicine, says, “Although we had three staff members in the department who spoke Cantonese, the use of staff and family members as interpreters is discouraged when consents, diagnoses, treatment, interventions are discussed.”

Instead, the hospital’s in-house interpreter was called to come to the ED as soon as possible and arrived simultaneously with the on-call cardiologist, who happened to speak fluent Cantonese. “He discussed the diagnosis, cardiac catheterization procedure, and consent process with the interpreter and family at the bedside,” says Quon. “The patient received a full explanation of the procedure and process, and we made sure he had no further questions.”

For this particular patient, it was essential that the

COMING IN FUTURE MONTHS

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■ ED nurses use a rapid ECG protocol to catch atypical MIs

eldest son approved of the medical decision making and interventions, adds Quon.

The man immediately was transported to the cardiac catheterization lab, where he received a coronary stent for an occlusion of the left anterior descending artery. "If translation services were not available, we would not have been able to get this patient to the right place at the right time," says Quon. "We were able to obtain our core measure of door-to-balloon within four hours, and the patient was discharged from the hospital three days later." ■

CNE 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.

1. Which is recommended to prevent pediatric medication errors in the ED?
 - A. Avoid sharing actual mistakes that have occurred in your ED.
 - B. Use protocols for high-alert, high-risk medications.
 - C. Store multiple concentrations of oral antibiotics.
 - D. Stop using weight-based dosing charts.
2. Which is true regarding younger patients and myocardial infarction (MI)?
 - A. Younger patients should only be given an electrocardiogram if they report severe chest pain.
 - B. Younger patients are more likely than older patients to have diabetes.
 - C. Younger patients are more likely than older patients to be obese and smokers.
 - D. Less than 1% of MIs occur in patients younger than 45.
3. Which is true regarding procedural sedation performed by emergency nurses, according to Molly A. Evans, RN, BSN, CEN?
 - A. Research indicates that giving propofol in the ED is unsafe.
 - B. Procedural sedation done by ED nurses is linked to adverse outcomes.
 - C. Patient outcomes are better when ED nurses are responsible for the overall patient's care in addition to administering medications and monitoring.
 - D. Procedural sedation done by ED nurses decreases the length of time before treatment, which can lessen the chance of neurovascular complications.
4. Which of the following is a symptom suggesting the patient is in congestive heart failure?
 - A. Shortness of breath getting worse with physical activity.
 - B. Palpitations.
 - C. Using two pillows when sleeping.
 - D. All of the above

Answers: 1. B; 2. C; 3. D; 4. D.

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