

ED NURSING™



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Many children at high risk for septic shock: Follow these steps

Identify immunocompromised children at triage

If an infant or toddler presented with symptoms of an ear infection or the flu, would you ask about chronic medical conditions? This information is important, since immunocompromised children are at high risk for sepsis, says **Rebecca Steinmann**, RN, MS, CEN, CCRN, CCNS, clinical educator for the ED at Children's Memorial Hospital in Chicago.

ED nurses are caring for increased numbers of children at potential risk for sepsis, says Steinmann. "This is in large part because of our medical successes in managing children with chronic life-limiting conditions," she says. "This increases the pool of likely candidates."

Children living with HIV, sickle cell disease, steroid dependent-children, transplant patients, and children receiving chemotherapy or radiation therapy are some examples, says Steinmann. "In our ED, we are evaluating neonates and children with possible sepsis on a daily basis," she adds.

Failing to follow current recommendations for sepsis increase liability risks for emergency nurses, warns **Sue Dill**, RN, MSN, JD, director of hospital risk management at OHIC Insurance Co. in Columbus, OH. "If a physician orders something that is not according to the standard of care, you should bring it to their attention and follow the chain of command, depending on the nature of the deviation," she recommends. (See resource box on p. 28 to obtain current

EXECUTIVE SUMMARY

Emergency nurses are caring for increasing numbers of immunocompromised children, including children receiving chemotherapy, transplant patients, and children with HIV and sickle cell disease. These patients are at high risk for sepsis.

- Ask about chronic medical conditions.
- Signs of a septic child include tachycardia, mottled skin, delayed capillary refill time, irritability, hypotension, and fever.
- Give antibiotics as quickly as possible.
- Monitor patients for septic shock and blood pressure instability.

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guidelines, and see related story on p. 29 on order sets for septic patients.)

Identify, treat without delay

At Children's Hospital Los Angeles, neutropenic children with fever are triaged quickly and in most cases, receive antibiotics within the first hour of arrival, says **Inge Morton**, RN, CPN, manager of education for the ED.

"Streamline the initial diagnostic work-up and treatment by using multidisciplinary protocols or clinical pathways," recommends Morton.

ED nurses use a protocol for children with fever/neutropenia and a treatment protocol for infants younger than 2 months old with fever to expedite diagnostic tests and antibiotic administration, she says. (See the ED's protocol on p. 27.) The protocols allow

nurses to get the work-up started, so by the time the ED physician evaluates the patient, the lumbar puncture can be done and antibiotics can be given, says Morton. "This is more of a parallel process, instead of a step-by-step process that can take hours on a busy day," she says. "It took some time to get all the team members on board with using the protocols, but we are finally seeing them used on a frequent basis."

Some physicians argued that not every patient is the same and medicine can't be reduced to "cookie-cutter" recipes, Morton explains. To obtain buy-in, she recommends the following:

- Communicate a clear vision what the protocols are supposed to accomplish, such as expediting care and decreasing length of stay and treatment delays.
- Give team members time to review and provide input.
- Empower nurses to suggest initiation of the protocol.
- Track use of the protocol and outcomes, and identify reasons why the protocol was not initiated in cases that met the criteria.

Identify immunocompromised patients upon arrival to the ED, and provide them with a mask, says Morton. "In addition, those patients should be isolated from the general ED waiting room," she notes.

To identify children at risk for sepsis, ask these questions at triage, says Morton:

- Does the child have any medical problems in addition to the current chief complaint?
- Has the child been hospitalized or had surgery previously? If so, what was the reason?
- Is the child taking any medications?

Often, parents will bring a child to the ED for a specific symptom, such as fever or vomiting. Unless they are asked, they will omit mentioning the chronic medical problems because the parents don't think the current symptom relates to the chronic condition, says Morton.

However, a child with a 38.5°C fever who otherwise looks well might be triaged at a low acuity rating, but the same complaint in a child with sickle cell disease would receive a high-acuity rating, Morton says.

"Therefore, the patient would be seen much sooner by a physician, and established clinical pathways could be initiated right from or after triage," she explains.

Give antibiotics as soon as possible, and closely monitor the patient for signs of septic shock, says Morton. Common signs of sepsis in children are tachycardia, mottled skin, delayed capillary refill time, irritability, hypotension, and fever, she says. "Neonates may present with hypothermia instead of fever, due to their

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Children's Hospital
Emergency Department
Fever without source < 2 month
Protocol

	Allergies	Age	Weight(kg)
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Inclusion Criteria: documented temperature $> 38^{\circ} \text{ C}$

Exclusion Criteria: Return visit within 48 hrs, signs of shock;

Time: _____

MD Initials: _____

Patient meets inclusion criteria and has no exclusion criteria

MD Initials

_____ I & O cath, Urine dip, urine culture, urine micro if dip is positive

_____ IV Heplock

_____ CBC, chemstrip, blood culture

_____ Chem 8/ I-Stat 6+

_____ CSF panel

_____ LMX4 to L-Spine

_____ CXR R/O _____

_____ Antibiotics to be given after Cultures obtained:

_____ Cefotaxime 50 mg/kg = _____ mg IVP

_____ Ampicillin 50 mg/kg = _____ mg IVP

_____ Ceftriaxone 50 mg/kg = _____ mg IVPB

Time: _____

Admit slip placed

Time/Ordering Attending

Time/Primary RN

Lab results show low suspicion for bacteremia and patient is:

- >28 days of age
- well hydrated
- non-toxic
- tolerating POs
- F/U PMD verified

↓

D/C Home w/ F/U in 24 hrs. **For further instructions see Resident MD form.**

Lab results show suspicion for bacteremia, meningitis or other focal bacterial source and/or

- poor feeding
- toxic appearing

↓

Request Admission

For further instructions see Resident MD form.

Time/Ordering Attending/Initials

Time/Primary RN Initials

Children's Hospital Los Angeles
Emergency Department
Fever < 2 mo Protocol

Source: Children's Hospital, Los Angeles.

SOURCES/RESOURCE

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The complete guidelines for sepsis can be downloaded at no cost on the Society of Critical Care Medicine's web site: www.sccm.org. Click on "Professional Resources," "Sepsis Information," and "Surviving Sepsis Campaign Guidelines." The Institute for Healthcare Improvement has developed interventions for severe sepsis. They can be accessed at no charge at www.qualityhealthcare.org. Click on "Topics," "Critical Care," and "Sepsis."

Continued from page 26

immature thermoregulatory system," says Morton.

If sepsis is suspected, initial broad-spectrum antibiotics are given in the ED, says Steinmann. Previously, nurses reconstituted antibiotics and did the drug calculations in the ED, with dosages checked by a second nurse, but this practice was changed to comply with requirements of the Joint Commission on Accreditation of Healthcare Organizations. The standards require a pharmacist to review all prescription or medication orders, except in urgent situations when the resulting delay would harm the patient, including situations in which the patient experiences a sudden change in clinical status.

"Our Joint Commission consultants informed us that the standard is now being interpreted as the physician who has taken responsibility for the first-dose review having to be at the patient's bedside, rather than in close proximity, when drugs are administered that have not been verified by pharmacy," says Steinmann.

At Children's Hospitals and Clinics in Minneapolis, ED nurses have a goal to give antibiotics within 90 minutes of arrival, as soon as all necessary lab work is completed, reports **Julie Maas**, RN, an ED nurse. "We have an experienced nurse at sign-in who notifies our triage nurse immediately if a possible septic baby signs in, especially an infant under 4 weeks of age," says Maas. "The sign in nurse immediately gives that chart to a triage nurse, who takes the patient directly to a room."

Next, the ED nurse assesses the patient, takes vital signs, and notifies the physician, who writes orders for labs and antibiotics and does a spinal tap. "The nurse should be able to do her lab work and start an IV and administer the antibiotics, all within 90 minutes," says Maas.

These steps occur if sepsis is suspected, at Minneapolis Children's ED:

— **Children four weeks and younger receive a full sepsis work-up, including blood, urine, and spinal tap.** "Their immune system is the most immature, so they are not as able to fight infection as older infants," Maas explains. "Older babies will get blood and urine labs done if there is a history of fever. Then based on those results and how the infant 'looks,' the spinal tap will be done."

— **Infants 4 weeks and younger automatically are admitted for IV antibiotics for a minimum of 48 hours.** "Our babies of 4 to 8 weeks may be able to go home on oral antibiotics," Maas says. Babies older than 8 weeks will follow the protocol of blood and urine labs done first, then continue with the same format as the 4- to 8-week-old babies: A spinal tap is done and the child is sent home on antibiotics if the lab work is normal, or they're admitted if IV therapy is needed.

The key is to identify a possible septic baby as quickly as possible, says Mass. "Nurses are then capable of advocating for a physician to see the infant immediately, obtain the labs needed, and begin an IV and antibiotics as soon as possible," she says.

Once antibiotics are given, you must watch closely for signs of blood pressure instability, says Morton. For infants, systolic blood pressure should be at least 75 mm/Hg, depending on age. For children 2 and older, the ideal systolic blood pressure is 90 plus two times the child's age, and the lowest acceptable normal systolic blood pressure is 70 plus two times the child's

age, says Morton.

Once you give antibiotics, it triggers lysis of bacteria, she says. "This can release endotoxin, causing hypotension," Morton says. "Patients who receive antibiotics for suspected sepsis should be monitored for this possible effect of the antibiotic." ■

Study says order sets benefit septic patients

Using a standardized order set for ED patients in septic shock is linked with more rigorous fluid resuscitation, more appropriate initial antibiotic treatment, and a lower 28-day mortality, says a new study.¹

Researchers at Barnes-Jewish Hospital in St. Louis compared treatment of patients with septic shock before and after a standardized hospital order set was implemented, with 60 patients in each group. Patients in the "after" group received more intravenous fluids while in the ED, were more likely to receive intravenous (IV) fluids of >20 mL/kg body weight before vasopressor administration, and were more likely to be treated with an appropriate initial antimicrobial regimen, compared with patients in the "before" group.

Implementation of the "Surviving Sepsis" treatment pathways should be a priority for ED nurses, says **Jennifer Williams**, MSN, RN, BC, M-S CNS, CEN, CCRN, one of the study's authors and clinical nurse specialist for emergency services at Barnes Jewish. "Our patients will have the greatest potential for survival and limiting morbidity if the ED nurse places a filter for sepsis at triage," says Williams.

At Barnes-Jewish, ED nurses do this for every patient by looking for two abnormal vital signs and a potential infection. "This is a simple process to incorporate in triage practices," Williams says. "However, to filter out the overwhelming number of patients that

SOURCE

For more information on order sets for sepsis, contact:

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could be septic based on the above criteria, we implemented a nursing triage protocol that allows the nurse to obtain a point-of-care lactate level. If the patient has a level greater than 4, other treatments are implemented."

ED nurses at Barnes-Jewish now do central venous pressure monitoring, central venous oxygen saturation monitoring and arterial lines, says Williams. "Not all EDs are equipped to monitor these parameters, so partnering with an [intensive care unit] is ideal," she says. "An alternative is to obtain a venous blood gas with saturation every 30 minutes."

Reference

1. Micek ST, Roubinian N, Heuring T. Before-after study of a standardized hospital order set for the management of septic shock. *Critical Care Med* 2006; 34:2,707-2,713. ■

Patients in severe pain may have normal vital signs

Research proves longstanding belief is incorrect

Patients in severe pain often have normal heart rate, blood pressure, and respiratory rate, according to a new study. Researchers compared self-reported triage pain scores and vital signs for 1,063 adult ED patients with painful conditions such as dislocations, corneal abrasions, fractures, burns, stab wounds, and small bowel obstructions. No link was found between the pain scores and the patients' vital signs.¹

The study disproves a longstanding belief in emergency medicine: that pain is associated with abnormal vital signs, says **Catherine A. Marco**, MD, FACEP, the study's author and faculty in the Department of Emergency Medicine at St. Vincent Mercy Medical Center in Toledo, OH.

ED physicians and nurses often make this erroneous conclusion, says Marco. "I was taught as a medical student that if someone is experiencing significant pain, they should be tachycardic or hypertensive," she says. "I have heard people making similar statements over the years." If a patient says he or she is in pain, believe them and treat the pain regardless of vital signs, says Marco.

"We have all heard people say, 'I don't believe that the patient is really in pain, because the vital signs are normal. If they were really in pain, they would be tachycardic or hypertensive,'" she says. "We showed that is *not* true, and that many patients in significant pain have normal vital signs."

EXECUTIVE SUMMARY

It's not accurate that patients in severe pain will have abnormal vital signs, according to a recently published study. In fact, these patients often have normal heart rate, blood pressure, and respiratory rate.

- Pain is not associated with abnormal vital signs.
- Believe the patient's self-report of pain.
- Ask every patient about their pain level using a numeric scale.

In fact, most patients with documented painful conditions have normal vital signs, says Marco. "We as clinicians must trust the patient's self-report of pain. At least for the present, we have no objective measure of pain, and it is still a subjective self-reported measurement," she says.

Strive for accurate score

At St. Mary's Hospital in Grand Junction, CO, ED nurses ask every patient about their pain level using a numeric scale during the initial assessment. "We accept their number at whatever they say it is," says **Karen Donnahie, RN**, an emergency nurse at the hospital.

Donnahie words the question, "On a scale of 0-10, with 0 being no pain, and 10 being the worst possible discomfort you can imagine, what number would you give your discomfort now? We also have the FACES scale on all of our patient clipboards, so it is handy for kids and non-English-speaking patients," she says.

During the ED visit, particularly after medications are given, the patient is asked again to rate their level of pain. "We have a space for it in our vital signs. We

SOURCES

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also have a space for it in the discharge vital signs," says Donnahie. The goal is to help the patient feel better, whether that requires a position of comfort, application of ice, elevation, or pain medication. "Even if they still have pain, we want the patient to leave feeling at least a little better," she adds.

Patients may state their pain is a "10" when there is no physical manifestation of that pain, such as crying or holding the affected extremity, says Donnahie. "It is difficult trying to elicit accurate pain scores with patients who seem to have no sense of past discomforts," she says. For these cases, nurses may offer a comparison for clarification, such as asking the patient, "Are you having as much pain as if I dropped a bowling ball on your foot?"

"I have had a number of patients rethink their pain scale when something worse is offered, such as the bowling ball," says Donnahie. "Many of them go from a 10 to an 8. They seem to gain a better understanding of the pain scale when they have something tangible to associate it with."

Explain that an accurate assessment means that pain can be treated appropriately, advises Donnahie. "The number does not guarantee them a different medicine, or a higher dose of a medication," she adds. "It is a guideline which assists us in their treatment."

Ultimately, nurses accept whatever score the patient gives, says Donnahie. "Accepting the patient's report of pain is the whole goal of asking, and we write it down even if they say their pain is a 20," she says. "We try to tell all the patients that we are not going to be able to get rid of their pain, but we will make it more manageable. This helps eliminate any false pre-conceptions they may hold."

Reference

1. Marco CA, Plewa MC, Buderer N, et al. Self-reported pain scores in the ED: Lack of association with vital signs. *Acad Emerg Med* 2006; 13:974-979. ■

Study: Older ED patients at risk with certain drugs

Avoid giving high-risk drugs to elderly patients

Many medications are inappropriate for elderly patients because of the risk of adverse drug events (ADEs), but these drugs are given commonly in the ED, says a new study.¹ Commonly used medications that should be used with caution in elderly patients include nonsteroidal anti-inflammatory drugs, benzodiazepines, and anticholinergic medications.

EXECUTIVE SUMMARY

Many medications used commonly in the ED can put older patients at risk for adverse outcomes, so safer alternatives should be considered.

- Ask patients about recent changes in medication regimens.
- Diphenhydramine can cause confusion or urinary retention.
- Propoxyphene has been associated with hip fracture.

"The take-home message here is that medications that we commonly use in younger patients may not be the best choices for older patients," says **Kennon Heard, MD**, assistant professor of emergency medicine at University of Colorado School of Medicine in Denver. "Nurses should ask themselves if the medications are the best for the specific patient, rather than allowing habit to dictate."

Older patients often present to the ED with ADEs, but symptoms may be vague, including confusion, lightheadedness, dizziness, or generalized weakness, says **Kevin M. Terrell, DO, MS**, the story's lead author and assistant professor of emergency medicine at Indiana University School of Medicine in Indianapolis. "Consider the possibility of an ADE when older adults present to the ED with these or other nonspecific symptoms," advises Terrell.

Recently, a 65-year-old man presented to ED nurses at Indianapolis-based Wishard Memorial Hospital with altered mental status and was evaluated for sepsis and possible stroke. "Upon undressing him, a fentanyl patch was found on his abdomen," says **Beth Sandford, RN, BSN, CEN**, ED clinical coordinator. "Several hours after removing it, the patient's mental status substantially improved." The ED's electronic medical record showed that the fentanyl patch was a new medication prescribed several days earlier, and the patient had apparently not taken a strong narcotic medication in the past.

Ask about recent changes in the patient's medication regimen, including over-the-counter drugs, says Terrell. "The recent addition of new drugs or changes in the dosing of current medications may have led to the patient's symptoms," he explains.

Give safer medications

Many medications given in the ED can cause an ADE, such as diphenhydramine, which can result in confusion and urinary retention in older adults. If used for seasonal allergies, then nasal steroids or

second-generation antihistamines, such as fexofenadine, loratadine, or cetirizine, are safer alternatives in older adults, says Terrell.

"For allergic reactions, I recommend second-generation antihistamines and oral steroids in place of diphenhydramine, if the patient is not at high risk of gastrointestinal bleeding," he says.

For more severe allergic reactions, diphenhydramine should be given along with steroids, with possible admission for observation of the patient's allergic symptoms and potential side effects from diphenhydramine, adds Terrell.

Another drug that puts older patients at risk for ADEs is propoxyphene or propoxyphene/acetaminophen, says Terrell. "It has never been shown to be superior to acetaminophen, and its use entails significant risk," he says. "Use of propoxyphene by older adults has been associated with hip fracture and an increased risk of hospitalization, ED visit, or death."

When treating mild or moderate pain in older adults, use acetaminophen initially, recommends Terrell. "Nonsteroidal anti-inflammatory drugs (NSAIDs) may also be used, with the caveat that their use is associated with development of peptic ulcer disease and renal dysfunction in older adults," he says.

However, if acetaminophen or NSAIDs fail, or if a patient has more than mild or moderate pain, then opioid analgesics should be considered, says Terrell. "They are generally safe for older adults when understood and used correctly," he says. Use low doses with dosing escalation as needed for adequate pain relief, and prevent opioid-induced constipation by increasing fluid intake and using stool softeners and motility agents, advises Terrell.

Whenever any medications are given to an older ED patient, serially evaluate the patient to look for symptoms or signs of an ADE, says Terrell. In Wishard Memorial's ED, guidelines state that patients are assessed 30 to 60 minutes after medications are administered, Sandford says. However, certain drugs call for more frequent observation, she adds.

"For example, promethazine administration in the elderly population sends red flags to nursing for reassessment," she says. "Sometimes patients become disoriented, confused, and agitated." If a deviation from the patient's baseline is noted, the physician is notified immediately and interventions are initiated, says Sandford.

When older patients are discharged, advise patients to contact their physicians or return to the ED if unusual symptoms develop after they begin taking any medication that is recommended or prescribed in the ED, Terrell advises. Tell the patient to notify his or her primary care physician about their ED visit and any medication changes that were made, and provide patients with

SOURCES

For more information on medications and older ED patients, contact:

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verbal and handwritten instructions on the medication, says Sandford. "For example, a patient that is discharged with naproxen for joint pain should have teaching done about pain, pain relief, not taking the medication on an empty stomach, and signs and symptoms of gastrointestinal bleeding," she says.

Reference

1. Terrell KM, Heard K, Miller DK. Prescribing to older ED patients. *Am J Emerg Med* 2006; 24:468-78. ■

Don't confuse look-alike, sound-alike drugs in ED

Use 'multiple checks and balances' to avoid errors

The Joint Commission on Accreditation of Healthcare Organizations has updated its list of look-alike/sound-alike drugs for the first time in several years. This action is significant because to comply with National Patient Safety Goal 3C, you must identify and annually review a list of look-alike/sound-alike drugs used and take action to prevent errors involving the interchange of these drugs.

"We have a list of look-alike and sound-alike medications that we post for staff," says **Jean Hlywiak**, RN, ED nurse manager at MetroHealth System in Cleveland. ED nurses are asked to review the list and

give suggestions on which drugs should be added to the list, she adds.

At William Beaumont Hospital-Royal Oak, MI, ED nurses use "multiple checks and balances" to avoid medication errors due to look alike or sound alike drugs, says **Mark Kelley**, RN, BSN, associate nurse manager in the hospital's emergency center. These steps are taken:

- Pharmacists call to confirm orders involving any potential mix-ups, such as checking that Amicar (aminocaproic acid) is the correct drug as opposed to Omacor (omega-3-acid ethyl esters).
- The ED pharmacy's computer system has pop-up alerts that require the pharmacist to acknowledge potential look-alike medications.
- Nurses are trained to double- and triple-check medications before giving them.
- "Tall man" lettering is used to help staff distinguish between medications, such as "DOPamine" and "DOBUTamine." "These are both somewhat similar medications with very potent actions and with very different indications for use," says Kelley.
- Brightly colored "High Alert" stickers are used to help staff distinguish between medications with similar packaging or names.

At Metro Health System's ED, whenever an ED nurse tries to take out one of the drugs identified as look-alike or sound-alike, the automated medication dispenser stops and asks whether it is really the medication that is desired. "You have to reply 'yes,' before the machine will open for you to take the medication out," says Hlywiak. "It is extra security."

At Shore Health System in Cambridge, MD, a similar process is used to alert nurses when a look alike/sound alike medication is requested. "This advises the nurse that there may be a problem and to check the order against what is on the screen," says **Gail McWilliams**,

EXECUTIVE SUMMARY

To comply with Joint Commission on Accreditation of Healthcare Organization requirements, you must identify look-alike and sound-alike medications used in your ED and take action to prevent errors involving these drugs.

- Post a list of drugs with similar names or appearance.
- Have prompts in automated medication dispensers asking nurses to verify the correct medication.
- Use capital letters to distinguish between drugs with similar names.

SOURCES

For more information on preventing errors with look-alike/sound-alike drugs, contact:

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MS, RN, CCRN, CEN, the ED's former clinical nurse specialist. "The nurse must indicate the message has been read or the process stops." Look-alike, sound-alike medications are not stored next to each other, she adds.

Verbal orders are rarely used, to avoid medication errors caused by similar sounding names, McWilliams says. "When verbal orders are used, they are repeated back to clarify what has been said. Telephone orders are written and read back to the ordering practitioner."

ED nurses have been educated about the risks of look-alike, sound-alike drugs at staff meetings, and the list is posted at all medication dispensers, adds McWilliams. "In addition, reminders from pharmacy are sent regularly about any particular problems seen in the system and these are shared with staff," she says. "Individual nurses who make a medication error despite the precautions in place are counseled individually." (To see the Joint Commission's list, go to www.jcaho.org. Under "Patient Safety," click on "'Do Not Use" List" and then "Click here to view the official 'Do Not Use' List.) ■

Over half of skin infections in EDs are drug-resistant

Simple practices can stop spread of infection

If you are seeing increased numbers of patients with skin infections resistant to antibiotics in your ED, know that this jump reflects a nationwide trend.

"We are seeing an increased number of these skin infections," reports **Bill Raines**, RN, assistant manager

of the pediatric ED at Vanderbilt Children's Hospital in Nashville, TN. "This past summer, we probably saw eight to 10 per week."

National research data indicate the increase is widespread. When researchers analyzed 422 cases of skin infections in adult ED patients in 11 cities, they found that 59% were caused by methicillin-resistant *Staphylococcus aureus* (MRSA).¹

Only a decade ago, MRSA was hardly ever seen outside of hospitals and nursing homes, but EDs now are reporting dramatic surges in these cases. These skin infections can be life-threatening if bacteria get into the bloodstream, and drug-resistant strains can cause pneumonia and "flesh-eating" wounds, says **Gregory Moran**, MD, the study's lead author and clinical professor in the Department of Emergency Medicine at University of California Los Angeles-Olive View Medical Center in Sylmar.

Signs that a skin infection may be life threatening include rapid progression, gas formation in the tissues, systemic toxicity such as high fever, or signs of organ dysfunction such as elevated creatinine levels, altered mental status, hypoxia, or acidosis, says Moran.

"We have had a number of cases of necrotizing fasciitis in our emergency department, but most of these were not due to MRSA," reports Moran. "MRSA-related necrotizing fasciitis cases have been described at several sites, but they are a small minority of cases of MRSA skin infections."

The study also reported some good news: Researchers found that several antibiotics were effective against MRSA infections, which suggests that infections contracted outside a hospital are easier to treat.

To improve care of MRSA infections in your ED, do the following:

- **Educate patients on wound care and how to avoid spreading the infection to others.**

Instruct patients not to share towels, razors, or other

EXECUTIVE SUMMARY

ED cases of methicillin-resistant *Staphylococcus aureus* (MRSA) are increasing dramatically. You must be vigilant about hand hygiene and infection control.

- Skin infections can be life-threatening if bacteria get into the bloodstream.
- Advise patients to avoid sharing towels, razors, and other objects.
- Have nurses and patients observe whether staff members have washed hands.

objects that could spread MRSA, says Moran. At Vanderbilt Children's ED, discharge instructions were improved for patients with MRSA who are treated and released. Patients are given the following instructions:

— Hand washing or use of an alcohol hand rub is the No. 1 method of defense against any type of infection, and is important in helping to prevent the spread of the bacteria to other family members.

— Keep cuts and scrapes clean and covered with a bandage until healed.

— Avoid sharing personal items such as towels, washcloths, or clothing that may have had contact with the infected wound or bandage.

— Wash sheets, towels, and clothes that may have become soiled with laundry detergent, and dry in a hot dryer. Clean household and personal items with a commercial disinfectant or a fresh solution of one part bleach and 100 parts water (1 tablespoon of bleach in 1 quart of water).

- **Be extra vigilant about hand washing and infection control.**

Community strains of MRSA can be spread in health care settings, warns Moran. Since MRSA typically is spread by direct contact, it is important to cover any infected areas, and use careful hand washing when changing dressings, he says.

"We have increased awareness at patient intake for contact precautions on any patient with skin lesions," reports Raines. When a patient presents to Vanderbilt's ED with any type of skin infection complaint, these steps occur:

— The triage nurse assesses the patient and notifies the charge nurse of the potential need for increased precautions.

— The patient is placed on contact precautions and given gown and gloves on arrival to a treatment room. "If the wound turns out to be 'just a bug bite,' that's good," says Raines. "If it turns into an incision and drainage, we have an early start on protecting staff and other patients from possible cross-contamination."

The ED is trying to identify the potential need for isolation precautions at intake, instead of after treatment has begun and staff potentially have already been exposed to an infectious agent, adds Raines.

Incision and drainage of an abscess usually is done with local anesthetic, sometimes supplemented by systemic analgesia, or even procedural sedation for large abscesses, says Moran. The abscess is incised with an 11 blade, sometimes irrigated, then packed with gauze, he says.

It's important for nurses who handle dressings for potential MRSA infections to use vigilant infection control techniques, wearing gowns and gloves, to avoid spreading MRSA to other patients, says Moran.

At Vanderbilt Children's, ED nurses are encouraged to say "I didn't see you wash your hands" to their colleagues if needed, says Raines. "Our staff are pretty good at checking each other as they assist with procedures and treatments," he says.

In addition, formal Environment of Care surveys are done quarterly in the ED, and the reviewers watch for instances in which staff members don't use an alcohol gel or wash hands before contact with the patient. "This is reported to the management team," Raines says. If a nurse is noncompliant, counseling takes place. Also, as we do manager rounds, we ask patients if they witnessed their caregivers wash their hands before touching the patient," Raines says.

Reference

1. Moran GJ, Krishnadasan A, Gorwitz RJ, et al. Methicillin-resistant *S. aureus* infections among patients in the emergency department. *N Eng J Med* 2006; 355:666-674. ■

New recommendations for tobacco control in the ED

A joint task force of emergency medicine organizations, including the Emergency Nurses Association, has issued new recommendations for tobacco control interventions in the ED, with nurses playing a key role.¹

EDs have not been a major focus of tobacco control efforts, although ED patients typically smoke at rates exceeding that of the general population, are interested in quitting, and often have limited access to primary care, says the statement.

Here are the task force's three recommendations:

- Routinely assess patients' smoking status.
- Offer brief advice to quit.
- Refer patients to the National Smokers' Quitline [(800) QUIT-NOW] or a locally available program.

The task force found that most ED nurses and physicians are asking about patients smoking status but are not assessing their willingness to quit. "We would like for ED nurses to ask all patients about tobacco use and to "advise, assess, assist, arrange," if smokers want to quit smoking," says Rita K. Cydulka, MD, MS, committee member and vice-chair of the Department of Emergency Medicine at MetroHealth Medical Center in Cleveland. This intervention can be accomplished in just a few minutes in the ED, she says. (See "Does your next patient want to quit smoking?" *ED Nursing*, May 2006, p. 82.)

"We recently participated in a demonstration project looking at this concept, and ran through 1,000 Quit

EXECUTIVE SUMMARY

A task force recommends that ED nurses ask all patients about tobacco use and advise all smokers to quit.

- Interventions can be done in just a few minutes.
- Refer smokers to national quit phone lines.
- Intervene when the patient is being discharged.

Cards in a very short time period," says Cydulka. "When we ran out, the doctors and nurses were asking for more because it was so simple to engage patients." The cards came from the San Francisco-based Smoking Cessation Leadership Center, a national program office of the Robert Wood Johnson Foundation that aims to increase the number of health professionals who help smokers quit. (**To order a minimum of 500 quit cards for your ED, go to smokingcessation-leadership.ucsf.edu. On the left side of the page, click on "1-800-QUIT-NOW," "Fill out the order form," and "Quit NOW card order form."** The cost is 18 cents per card including shipping and handling, which is \$90 for 500 cards.)

ED nurses can incorporate brief screening and referral into the routine care they deliver to patients, says **Steven L. Bernstein, MD**, committee member and associate professor of clinical emergency medicine at Albert Einstein College of Medicine in Bronx, NY. Ask the patient if he or she smokes, and if so, advise the patient to quit by saying it's the best thing they can do to improve his or her health, he says. Next, refer the patient to the National Smokers Quitline, which is answered by counselors at the patient's own state quitline.

"Quitlines provide free one-on-one counseling, referrals to local treatment programs, self-help materials, and, in some states, nicotine replacement therapy," says Bernstein. "They are evidence-based and effective." A good time to intervene is when the patient is being discharged, when you are reviewing the plan of aftercare, he suggests.

At MetroHealth's ED, many patients do not have a primary care physician, says **Heather Federle, RN**, ED nurse and clinical research coordinator for the Department of Emergency Medicine. "There is

certainly a need to intervene on behalf of patients," she says. "All of our patients identified as smokers are given our hospital's smoking cessation phone number on their discharge instructions."

Patients may be more willing to pursue quitting when you are able to spend time discussing their smoking history and health implications, Federle says. "Assessing logistics and financial resources also seems to play a large role in their willingness to participate in programs, but this also can be time-consuming," she says.

Federle acknowledges that nurses lack adequate time to discuss smoking cessation, and simply providing the resources isn't always enough. "In an ED filled with patients who are critically ill and injured, we rarely have the time to sit down for 10 or 15 minutes with each patient to assess comprehension, assist them in finding resources that are convenient and financially feasible, and ensuring they will follow up," she says.

However, regardless of the amount of time you can spend with a patient, any education or resources you provide are beneficial, adds Federle. "We may be the only health care providers they have contact with."

Reference

1. Bernstein SL, Boudreux ED, Cydulka, RK, et al. Tobacco control interventions in the emergency department: A joint statement of emergency medicine organizations. *J Emerg Nurs* 2006; 32:370-381. ■

CE instructions

Nurses participate in this continuing education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue.

Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material.

After completing this semester's activity with the **June** issue, you must complete the evaluation form provided in that issue and return it in the reply envelope provided in order to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you. ■

COMING IN FUTURE MONTHS

- Safest ways to communicate with non-English-speaking patients

- Save time on nursing tasks with mobile computers

- Ensure compliance with medication standards

- Take these steps when a patient overdoses on cough medications

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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 improve care of pediatric patients with sepsis, according to Inge Morton, RN?
 - A. Treat immunocompromised children no differently from other patients.
 - B. Give antibiotics only after the child is admitted.
 - C. To cut delays, avoid asking about chronic medical problems at triage.
 - D. Give antibiotics and closely monitor children for signs of septic shock.
2. Which is true about pain assessment and vital signs, according to Catherine A. Marco, MD, FACEP?
 - A. Patients in severe pain always have increased heart rate.
 - B. Respiratory rate may be normal, but patients in pain are always hypertensive.
 - C. Many patients in severe pain have normal vital signs.
 - D. Almost all patients with documented painful conditions have abnormal vital signs.
3. Which is true regarding medications given to older patients in the ED, according to Kevin M. Terrell, DO, MS?
 - A. Opioid analgesics should never be considered, even for severe pain.
 - B. Diphenhydramine can cause confusion in older adults.
 - C. Propoxyphene results in fewer adverse drug events than acetaminophen.
 - D. Acetaminophen use is associated with hip fracture.
4. Which is true of ED cases of skin infections caused by methicillin-resistant *Staphylococcus aureus* (MRSA), according to a recently published study?
 - A. MRSA cases rarely are seen outside of nursing homes.
 - B. MRSA cases are never life-threatening.
 - C. No antibiotics are effective against most MRSA cases.
 - D. More than half of skin infections seen in the ED are caused by MRSA.

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