

ED NURSING™

Vol. 2, No. 10

Inside

Special Report: Elderly patients in the ED

- Advice on mental status screening for elderly 121
- How to distinguish between delirium and dementia . . . 122
- Tips for spotting abuse of older patients 122
- Effective treatments for MI in aged patients 123
- 6 steps to better trauma care for older patients. 124
- Treat falls differently for elderly patients 125

■ **ENA survey:** Latest on violence-related visits, other trends. . . 127

■ **Tip of the month:** Cool heat stroke victims quickly 130

August
1999

American Health Consultants® is
A Medical Economics Company

Elderly patient numbers are up — you'll need your detective cap

Drug dosages, presentations, and social needs differ for elderly

An elderly woman came to the ED with congestive heart failure (CHF) and difficulty breathing, and she was treated medically. But when an ED nurse did an assessment, the woman broke down crying, and another problem was revealed.

“It turned out that her daughter wouldn’t get her medicines filled, and her mother thought she was trying to kill her;” recalls **Pamela Kidd**, PhD, FNP-C, CEN, an ED nurse at Kentucky Injury Prevention and Research Center in Lexington. “When we talked to the daughter, we found out she couldn’t keep up with the demands of caring for her mother, but didn’t want to put her in a nursing home.”

After interviewing the patient and caregiver further, the ED nurse explained the problem to the floor nurses and requested follow-up with social services. After the patient was admitted and discharged, she was placed in a nursing home.

“It was the best situation for both of them, because it re-established their bond, and she ended up loving the nursing home,” says Kidd.

The ED nurse’s assessment and follow-up played a key role in resolving a complex social problem, Kidd stresses. “If it hadn’t been for those interventions, she would have been just another CHF patient treated, and she would have been back in a week,” she adds.

When a 70-year-old woman came to MetroHealth Medical Center’s ED in

EXECUTIVE SUMMARY

The elderly comprise approximately 16% of all ED visits, 39% of all ambulance arrivals, and almost half of all ICU admissions.

- Almost half of all elderly patients are admitted.
- Arranging for social services, meals on wheels, or delivery of equipment may keep elderly patients from being admitted.
- Delirium is an acute, reversible, potentially life-threatening condition that requires extreme emergency care. Dementia is very slowly progressive and is not an emergency.
- Doing an adequate mental status screening can help you to identify cognitive derangements in elderly patients.

Cleveland, complaining of cough and weakness, she was placed in a non-acute bed. "I interviewed her and found that she also had shortness of breath," notes **Stephen Meldon, MD**, an attending physician in the ED. "The EKG showed that she'd actually had a major MI two or three weeks earlier, which she thought was indigestion."

At the time of the MI, the woman had refused to come to the hospital. "That attitude is very common with elderly patients," notes Meldon. "She had gone to see her primary care physician, and he prescribed antibiotics for bronchitis because of shortness of breath and coughing. She was actually in mild heart failure by the time she came to the ED, which is why she was weak."

After a more detailed history was taken, the truth became clear. "We asked her how she felt last week, and the week before that. She told us that's when it started, that she was throwing up and was sweaty," Meldon recalls. "Since she told the triage nurse she had bronchitis, she was put in a non-monitored bed, when in reality she had had a massive MI."

The above cases illustrate the detective work that often is needed with elderly patients in the ED. Expect such challenges to appear more frequently in your ED. The number of elderly patients is steadily increasing.

Elderly to double in 25 years

Currently, the elderly are about 13% of the population, or 35 million people. Projections for the number of elderly are to double in another 25 years to 68 million. Patients older than 85 are the fastest growing subset of the population and currently represent about 5 million people.¹

As of 1995, the elderly comprised approximately 16% of all ED visits.

"Thirty-nine percent of all ambulance arrivals are with elderly patients, who are very likely to use EMS," Meldon adds. Also, almost half of all elderly patients are admitted, which accounts for 7 million hospital admissions, and almost half of all ICU admissions.²

Here are some ways to meet the unique needs of the elderly in your ED:

- **Assist caregivers.**

Family members may be concerned that they can't take care of a patient at home, Meldon says. "In such a scenario, admission may be indicated," he says.

Another option is to arrange for a visiting nurse to help the caregiver. "That may give a little breathing room that the caregiver needs, especially with patients with cognitive impairment or Alzheimer's, who are very hard to take care of," Meldon suggests. "Be aware of what your community offers, such as various aid or home overnight programs."³

- **When complaints are vague, probe further.**

"A lot of times, family members will tell you the patient is not eating or is 'not themselves.' The patient may have a serious illness, but the elderly have so many atypical presentations of common and serious diseases, it is often difficult to see what is going on with them," says Meldon.

- **Take time to perform a thorough history.**

Often, there is no time to do a detailed history, so you need to cut it short to get the job done, but elderly patients shouldn't be rushed when providing information. "They need longer time to process information and answer your questions," says Kidd. (**See related stories on recognizing delirium and dementia and performing a mental status exam, p. 122.**)

Complex social needs can't always be ascertained in a quick appraisal. "The best thing you can do is to give them a little extra time for the history," Kidd recommends. "Explain to your colleagues that you are going in with an elderly patient and will be in there for awhile."

- **Know the resources of your community.**

You can prevent a repeat ED visit or potential abuse from occurring by knowing about resources such as respite services and eligibility criteria for senior day care, Kidd advises. "This is particularly important if you don't have a social worker in the ED," she stresses. "Xerox all the information and have it ready to go."

With high-risk cases, make the call yourself. "You don't have to do it necessarily during that crazy shift, but assign someone else to follow up," Kidd recommends.

Providing social services to elderly patients is a good marketing strategy for your ED. "You can say that in your ED, you try to work with the elderly to connect them with community resources," says Kidd. "There must be support from the top down, so nurses won't be criticized for taking so long with elderly patients."

- **Address unique needs of the elderly.**

Geriatrics should be a recognized subspecialty of emergency care, just as pediatrics is, argues **Terasita Hogan, MD, FACEP**, director of emergency medicine

COMING IN FUTURE MONTHS

■ Prescription drug interactions

■ Start a SANE program

■ Risk management tips for ED nurses

■ Update on pediatric restraints

■ Symptoms of geriatric cardiac emergencies

SOURCES

For more information about care of the elderly in the ED, contact:

- **Terasita Hogan**, MD, FACEP, Resurrection Medical Center, Emergency Medicine Residency Program, 7435 W. Talcott Ave., Chicago, IL 60631. Telephone: (773) 792-7921. E-mail: thogan@reshealthcare.org.
- **Pamela Kidd**, PhD, FNP-C, CEN, Kentucky Injury Prevention and Research Center 333 Waller Ave., Suite 202, Lexington, KY 40504. Telephone: (606) 257-9483. Fax: (606) 257-3909. E-mail: ps Kidd1@pop.uky.edu.
- **Stephen Meldon**, MD, MetroHealth Medical Center, Emergency Department, 2500 MetroHealth Drive, Cleveland, OH 44109. Telephone: (216) 778-8912. Fax: (216) 778-5349. E-mail: smeldon@MetroHealth.org.

residency program at Resurrection Medical Center in Chicago.

Just as there are pediatric rooms with cartoon characters on the wall, there should be geriatric rooms, Hogan argues. "The beds should be softer, doors should be closed so the patient can hear without background noise interfering, and brighter lights," she says. (See stories on unique geriatric needs pertaining to abuse, p. 122; trauma victims, p. 124; and falls, p. 125.)

• Provide adequate ancillary services.

"In many cases, if you are able to arrange meals on wheels or equipment to be delivered to the patient's home, such as an oxygen tank or wheelchair, that alone may keep them out of the hospital," says Hogan. "EDs that can't get those services may have to admit the patient."

• Know differences in drug dosages.

Just as with children, drug doses are different in the elderly. "For example, you might need to cut the Lidocaine dose in half, or the patient may get acute mental status changes and maybe even seizure disorders," says Hogan. "You also need to look for drug-drug interactions."

References

1. Strange GR, Chen EH, Sanders AB. Use of emergency departments by elderly patients: projections from a multi-center base. *Ann Emerg Med* 1992; 21:819-824.
2. Strange G, Chen E. Use of emergency departments by

elder patients: A five-year follow-up study. *Acad Em Med* 1998; 5:1,157-1,162.

3. Castro JM, Anderson MA, Hanson KS, et al. Home care referral after emergency department discharge. *J Emerg Nurs* 1998; 24:127-132. ■

Mental status exam should be thorough

Multiple studies have shown that ED nurses and physicians miss cognitive derangement in elderly patients because no one does an adequate mental status screening on them, notes **Terasita Hogan**, MD, FACEP, director of emergency medicine residency program at Resurrection Medical Center in Chicago.

"Because of society's prejudice accepts that grandma is a little bit confused, clinicians often don't make an issue of it," she says. (See **explanation of the difference between dementia and delirium, p. 122.**)

In your evaluation of the geriatric patient, do a mini mental status exam. "You can do this in 90 seconds, and if it's abnormal, follow that up," says Hogan. "This is a skills set we need to learn and incorporate into our practice."

Here are the steps for a mini-mental status exam, according to Hogan:

1. Orientation.

Ask, "Who are you?"

Ask, "Where are you?"

Ask, "What is the date?"

2. Attention.

Is the patient able to follow your actions? Tell him/her why you are there; then see if he/she understands it.

3. Agitation/depression.

Is the patient restless or agitated vs. depressed or withdrawn?

4. Reality/hallucinations.

Assess visual hallucinations: seeing imaginary objects.

Assess auditory hallucinations: hearing voices or music.

5. Memory.

Ask, "What are your children's names?"

Say, "Name the last three presidents."

Introduce yourself, then see if the patient remembers you a minute later. ■

The difference between delirium and dementia

Although delirium and dementia are both the result of a disease process resulting in a confused patient, they are critically different medically, says **Terasita Hogan, MD, FACEP**, director of emergency medicine residency program at Resurrection Medical Center in Chicago.

Delirium is an acute, reversible, potentially life-threatening condition that requires extreme emergency care. It is an abrupt disorientation for time and place, usually with illusions and hallucinations. The mind wanders, speech may be incoherent, and the patient is in a state of mental confusion and excitement.

Elderly patients with delirium tend to be quiet. "If the patient is quiet, we often won't delve into the problem, although serious pathology could be going on. If a patient is screaming and ranting, we are more likely to give them attention," Hogan notes. "This may very well cause you to miss a life-threatening event."

Tips to help you detect elder abuse

The next time an elderly person comes to your ED with falls, bruising, and vague aches, consider the fact that abuse may be occurring. There are an estimated 1 to 2 million victims for all types of elder abuse, but less than 10% are estimated to be reported.¹

Abuse may be present in four forms: physical, psychological, exploitation, and neglect. "Neglect is the most common form of elder abuse," says **Stephen Meldon, MD**, an attending physician in the ED at MetroHealth Medical Center in Cleveland. "This is the failure of the caretaker to provide services which are necessary, whether intentional or unintentional."

Here are some things to consider about elder abuse:

- **Know signs of abuse.**

Signs of elder abuse are similar to those of child abuse, Meldon says. "Typical things to be concerned about include a delay in presentation of injury, discrepancies in history between what the patient and caregiver tells you, or if the story seems implausible," he notes. Physical exam findings might include multiple bruises, fractures, unkempt appearance, poor nutrition, or dehydration.

Another sign red flag is subdued or withdrawn behavior. "However, that might be very hard to pick up

Dementia is very slowly progressive and requires support, but is not an emergency treatment priority. It is a loss of awareness for time and place, usually with inability to learn new things or remember recent events. The person may be lost in a time years prior to today. Remote memories may be intact. Total loss of function and a regression to an infantile state may result. This is often referred to as "senility."

Often, when nurses ask elderly patients specific questions, the patient sidesteps the question, says Hogan. "They may say, 'That's not important' or 'I'm just fine,' and it's because the patient is demented and doesn't know the answer to the question." If you don't put the patient on the spot and ask pointed questions, you may miss the dementia.

Dementia embarrasses the patient, so they become experts at covering it up, says Hogan. "It makes the nurse look like the bad guy if he or she presses the issue to get an answer to the question," she explains. "You may miss the diagnosis of dementia because primary concern is to be kind to the individual rather than get an accurate medical history." ■

older patients who may have dementia or depression," notes Meldon. "In fact, those patients are at higher risk, because they need a lot of assistance and may be difficult to take care of, which places them at higher risk for neglect and abuse."

Other risk factors are substance abuse or psychiatric illness, in either the patient or the caregiver.

- **Consistently screen.**

Ask the same questions for each client, and develop specific criteria for which patients to screen. "For example, it might be anyone over 65 with a chronic illness," suggests Kidd. "Or if the patient is on three or more meds, that can be a financial indicator, particularly if they are also uninsured. We can't [do] everything for everybody, particularly on a busy Saturday night, but a quick screening can be a very effective intervention."

- **Interview the patient and the caregiver separately.**

Compare the consistency of the stories and look for subtle signs, says Kidd. "It may not be full-blown abuse, but neglect can be physical, emotional, financial, such as failure to get medications filled, or not following up on clinic appointments," she says. "If you check and find out they've missed many, either it's a transportation issue or a caregiver problem."

When you interview caregiver alone, do so in a non-judgmental manner that gives them permission to express their feelings. "Ask them directly, 'Tell me what it is like to care for this patient. What is your day

like?" Those open-ended questions may encourage them to open up and tell you, "Well, it starts at 2:00 in the morning when they wake me up to go to the bathroom," says Kidd.

Underlying resentment is a red flag. "If they say the patient puts them into conflict with other obligations and work, or say they can't take care of their own needs, that is a true source of resentment," says Kidd. "When they start to blame the patient, saying they can do something better but won't, it shows they are reaching the end of the rope and abuse could happen."

- **Know reporting laws.**

Most states have mandatory reporting laws for geriatric abuse. Hospital lawyers, social work departments, or local nursing associations can provide this information, Meldon advises.

- **Find out if your ED has a protocol for elder abuse.**

"I guarantee you'll have one for pediatric abuse, but there may not be one for elder abuse," says Meldon.

If you don't have an elder abuse protocol, take the initiative and develop one with your social work department and present it to hospital administration, he recommends.

- **Consider hospitalization for abused patients.**

If you suspect abuse, consider admitting the patient for protection until the issue is resolved.

"If there is a real concern about a patient, the best thing to do is admit the patient, saying you are concerned about abuse and need further evaluation," Meldon recommends. "We certainly do that for pediatric

patients all the time."

Nurses can play an important patient advocacy role in this scenario and should express concerns to physicians.

- **Ask patient about abuse.**

"With the caregiver not present, interview the patient and ask about abuse," recommends Meldon. "Then interview the caregiver afterward. They may tell you they can't afford the medicines, which is unintentional neglect."

Nurses may be the best candidates to interview patients about abuse, says Meldon. "The patient may not want to tell the doctor or bother anyone. Nurses often spend time with the patient during assessment and provide education," he notes. Also, elderly patients may feel less intimidated by nurses, he adds.

Here are three key questions to ask:

1. **Has anyone ever hurt you?**

2. **Has anyone ever left you alone without food or water or medicine?**

3. **Have you been threatened by your caregiver?**

Many elderly patients are reluctant to admit abuse is occurring, says Meldon. "They depend on their caregiver or are very stoic, and are concerned about being placed in a nursing home," he emphasizes. "It's a complex problem without an easy solution, but nurses should be aware and try to help."

Reference

1. Jones JS, Veenstra TR, Samon JP, et al. Elder Mistreatment: National survey of emergency physicians. *Ann Emerg Med* 1997; 30:473-479. ■

Are thrombolytics, beta blockers risky?

Look at these treatments for the elderly

Effective treatments for myocardial infarction (MI) are underutilized in the elderly, including aspirin, beta blockers, and thrombolytics, argues **Stephen Meldon**, MD, an attending physician in the ED at MetroHealth Medical Center in Cleveland.

The elderly actually have the greatest benefit in terms of thrombolytics reducing mortality, says Meldon.

"There is an 18% relative reduction in mortality. However, thrombolytics are given to less than half of elderly patients, often because of risk of stroke," he notes.¹

Risk of stroke does increase three times with administration of thrombolytics, from .6% to 2%, Meldon notes. "If you have the ability to do catheterization

and angioplasty, that's what I would do for an elderly patient with an acute MI. But if you don't have that opportunity, you should strongly consider thrombolytics," he advises. "Tell patients there is a very small risk of stroke; however, there is a big decrease in mortality, so the benefits outweigh the risks in eligible patients."²

EXECUTIVE SUMMARY

Effective treatments for myocardial infarction are underutilized in the elderly, including aspirin, beta blockers, and thrombolytics, according to ED experts. In fact, thrombolytics and beta blockers are given to less than half of eligible elderly patients.

- Risk of stroke increases three times with administration of thrombolytics.
- Beta blockers and thrombolytics provide a 23% and 18% reduction in mortality, respectively.

Studies have shown an increased risk of cerebral hemorrhage in elderly patients receiving thrombolytic therapy, so screen for the following contraindications: major surgery or trauma within 10 days; history of central nervous system hemorrhage, tumor, aneurysm or arteriovenous malformation; hemorrhagic stroke within six months; spinal or intracranial surgery within three months; coma; bleeding diathesis (thrombocytopenia, hemophilia, platelet dysfunction); for streptokinase, prior administration within one year; prolonged cardiopulmonary resuscitation (>10 minutes); gastrointestinal or internal bleeding within three months; severe uncontrolled hypertension (>200/110). Pregnancy is also a contraindication.

Less than half of eligible patients receive beta blockers, which are very effective in reducing mortality of myocardial infarctions, Meldon reports. "There are a few strong contraindications, such as heart block and hypotension. But just because the patient is old, that doesn't mean they shouldn't get beta blockers," he says.

With beta blockers, there is a concern about exacerbating problems. "With beta blockers, you have a 23% reduction in mortality. These are really effective drugs, but there is a concern about side effects," Meldon notes.

Beta blockers can be given in titrated doses. "You can start with 5 mg IV metoprolol and go slow in increments to 15 mg, and see what the patient's response is," Meldon recommends. Contraindications for beta blockers include a high degree of heart block, hypotension, and acute congestive heart failure, he says.

References

1. Krumholz HM, Murillo JE, Chen J, et al. Thrombolytic therapy for eligible elderly patients with acute myocardial infarction. *JAMA* 1997; 277:1,683-1,688.
2. Paul SD, O'Gara PT, Mahjoub ZA, et al. Geriatric patients with acute myocardial infarction: Cardiac risk factor profiles, presentation, thrombolysis, coronary interventions, and prognosis. *Am Heart J* 1996; 131:710-715. ■

How to meet the needs of elderly trauma victims

Mortality of geriatric trauma patients is twice that of younger patients with equivalent injury severity, notes **Kari Nash**, RN, CEN, MICN, associate trauma coordinator at Loma Linda University Medical Center (CA).

For example, in 1997, people 70 and older accounted for 5% of all individuals injured in traffic collisions but accounted for 14% of all traffic fatalities, she

reports. Mortality often occurs later in the older population due to pre-existing conditions and complications related to these conditions, as well as the injury itself, Nash notes.

"For this reason, early and aggressive management is essential. This starts with appropriate field triage and early transport to a trauma center. This can help to prevent or at least reduce the deleterious effects," she says.

Here are some ways to improve care of elderly trauma patients:

- **Ensure early evaluation and intervention by a trauma surgeon.**

At Loma Linda, the hospital's trauma team is activated for all patients 75 and older.

"These criteria are based on age alone, even if by the pre-hospital report the patient is stable, thought to have no significant injuries, or the mechanism of injury is minor," Nash reports.

The need for this criteria was brought to light after a case review of two elderly patients treated at the ED. "According to the field report, these appeared to be minor trauma patients," Nash recalls. "But during the transport time or shortly after arrival in the ED, their status deteriorated, and they required rapid lifesaving intervention. Our nurses felt a strong need to have more aggressive guidelines in place for the management of geriatric trauma."

Having these guidelines in place allows a trauma surgeon to be in the ED to immediately to assess the patient rather than calling him or her when the patient's condition has become critical and precious time has been lost, Nash explains.

- **Know increased risks for the elderly trauma patient.**

"The elderly patient is at much greater risk of injury and death related to both underlying medical conditions and the normal physiological changes that

EXECUTIVE SUMMARY

Geriatric trauma patients have twice the mortality rate of younger patients with equivalent injury severity. Elderly patients with conditions such as decreased bone density and coagulopathies or anti-coagulant therapy make them more prone to fractures and increase risk of hemorrhage.

- Chest pain, dizziness, or syncope may have contributed to the cause of the incident.
- Elderly trauma patients often fear loss of independence and significant deterioration of their overall health.

accompany age, says Nash. "They have very poor tolerance to the hemodynamic instability and increased physiological demand that are associated with traumatic injury."

Conditions such as decreased bone density and coagulopathies or anticoagulant therapy make them more prone to fractures and increase risk of hemorrhage, she says.

"They are prone to cerebral bleeds related to weakened vasculature. The stress response of the trauma triggers a normal physiological reaction which may, in turn, lead to complications with underlying problems," Nash explains.

Patients with coronary artery disease may experience chest pain caused by the increased myocardial demand from the release of norepinephrine. "Still, other patients may exhibit these stress-related complications later in their course, as with the diabetic whose blood sugar becomes out of control during hospitalization," she notes.

- **Consider cause of the trauma.**

Consider what caused the trauma, stresses Nash. "Find out if there was any precipitating event that may have contributed to the cause of the incident such as chest pain, dizziness, or syncope," she says.

Determine when a patient's loss of consciousness occurred. "If it was prior to the event, further evaluation will be required to determine the cause," such as acute MI, dysrhythmia, stroke, transient ischemic attacks, hypoglycemia, or abuse, says Nash.

These underlying causes can often be life-threatening themselves, and at minimum, can complicate the injury. "At times, it is these underlying disease processes that are the more critical problem for the patient."

- **Don't overlook other medical problems.**

The complete assessment of the patient is often complicated by unrelated conditions.

"For example, a male patient in his 70s was flown into our facility after being hit by a car. The presenting complaint was altered level of consciousness," Nash recalls. "The patient was very confused upon arrival and somewhat combative. He was unable to provide us with any medical history or demographic information."

After a complete work-up and a negative head CT scan, no injuries were identified. "The police department was finally able to locate family and the rest of the story became clear," says Nash. "The patient had a history of Alzheimer's and had wandered away from a day care center. The patient was at his normal baseline and ended up being discharged home from the ED."

- **Know risks of diagnostic tests.**

Diagnostic tests are an essential part of a complete evaluation but pose increased risks for elderly patients.

SOURCES

For more information about caring for elderly trauma victims, contact:

- **Kari Nash, RN, CEN, MICN**, Loma Linda University Medical Center, 11234 Anderson St., Room 8700 G, P.O. Box 2000, Loma Linda, CA 92354. Telephone: (909) 824-0800 ext. 42980. Fax: (909) 824-4219. E-mail: KNash@ahs.llumc.edu.

IV contrast used for CT scans can lead to worsening renal insufficiency and contribute to the onset of acute renal failure, says Nash.

As with any trauma victim, surgery may be the only life-saving option, but for the elderly patient, the risk/benefit ratio needs to be carefully weighed. "This same patient may be considered too high a risk and not a candidate for even a minor elective surgery," explains Nash.

- **Facilitate treatment.**

Nurses can facilitate the patient's rapid flow through an often lengthy and exhausting battery of exams, tests, and treatments.

"Increased length of time on a backboard may contribute to issues with skin integrity, respiratory complications, and joint discomfort," Nash stresses. "Early removal of the backboard is important even if the spine cannot be cleared." ■

Don't underestimate the danger of falls

Falls are by far the most common cause of trauma in the elderly, reports **Stephen Meldon, MD**, an attending physician in the ED at MetroHealth Medical Center in Cleveland.

"A fall is a marker of frailty and functional decline, and can result in serious injuries such as hip fractures," he says.

Falls may be caused by extrinsic factors including home environment, loose rugs, poor lighting, handrails, or oversized clothing like robes, and intrinsic or physiologic factors such as impaired balance, reduced strength, and decreased visual acuity, notes Meldon.

Here are some statistics about elderly patients and injuries caused by falls:

— One-third of people over 65 will have a fall, and

EXECUTIVE SUMMARY

Falls are the most common cause of trauma in the elderly and are a marker of functional decline.

- Fifty percent of elderly patients who are hospitalized after a fall die within one year.
- Strength training, review of medications, education about sedatives, and environmental modification can reduce frequency of falls.
- Falls are often a sign of a serious functional problem.

10% to 15% result in a serious injury.

— About 1% of falls in elderly Caucasian women result in a hip fracture.

— Fifty percent of elderly patients who are hospitalized after a fall die within one year.

One program identified the following four ways to reduce risks of falls in nursing homes by 30%:¹

- **Strength training.**

“Exercise programs and light resistance training really makes a difference in muscle mass,” notes Meldon.

- **Review of medications.**

“A lot of medicines can cause hypotension, and sedatives and cholinergic medicines are linked to falls,” Meldon says.

- **Education about sedatives.**

“Nurses should review medications with the patient and also discuss them with the patient’s family members.”

- **Environmental modification.**

Contact local community agencies to have someone inspect the patient’s home. “They can make sure it’s a safe environment, get rid of throw rugs, [and] make sure extension cords aren’t across the hallway,” says Meldon.

When an elderly patient comes in after a fall, focus

Search for Hidden Pathology of Falls

- Always ask if the patient felt weak or dizzy prior to the fall.
- Ask for pre-fall syncope that would indicate cardiac dysrhythmia, myocardial infarction, or cerebrovascular accident.
- Ask for post-fall loss of consciousness that could indicate intracranial trauma.
- Remember that retrograde amnesia for syncope is present in one-third of all syncope patients. That means one-third of all patients who have syncope do not remember fainting because their brains were not getting enough oxygen or glucose at that time to preserve awareness of the event.
- Question the patient about cardiac problems:
 - chest pain;
 - palpitations;
 - shortness of breath or dyspnea on exertion;
 - diaphoresis;
 - history of myocardial infarction or cardiac dysrhythmias.
- Question the patient about neurologic problems:
 - focal weakness or numbness;
 - ataxia: prior trouble with walking or balance;
 - aphasia: trouble with speech: slurring or forgetting words;
 - trouble with activities of daily living.
- Can the patient comb hair, brush teeth, button buttons, and tie shoes? Answers to those questions will often reveal a serious underlying problem.
- Question the patient about volume loss:
 - nausea, vomiting or diarrhea. Specifically ask
 - about gastrointestinal bleeding;
 - lack of fluid and food intake;
 - orthostatic symptoms on sitting up or standing prior to this fall.
- Question the patient about generalized illness/weakness
 - history of cancer;
 - diabetes: Was he/she hypoglycemic? Check a glucose on all patients. Note use of insulin or oral agents and last meal.
 - Check for infection: fever, cough, upper respiratory infection or flu symptoms, abdominal pain, urinary symptoms.
- Question about acute abdomen:
 - abdominal pain;
 - possible aneurysm;
 - ruptured viscus.
- Question the patient for use of drugs that could impair balance or awareness:
 - sedatives or narcotic pain medications;
 - antihistamines;
 - antihypertensives;
 - alcohol
- Question for loss of up-righting reflex:
 - neuropathy;
 - musculoskeletal problems (arthritis);
 - vertigo;
 - old cerebrovascular accidents;
 - Parkinson’s disease;
 - poor vision.

Source: Terasita Hogan, MD, FACEP, Resurrection Medical Center, Chicago.

Physical Exam for Falls

- Always establish your airway, breathing, and circulation.
- Assess the patient's level of consciousness and mental status.
- Note the patient's vital signs.
- All fallen elderly patients should be placed on a cardiac monitor, due to high rate and mortality of cardiac dysrhythmias resulting in falls.
- Do a secondary survey searching for traumatic injury.
- Focus specifically on head, neck, hips, and pelvis. Direct special attention to areas of patient complaint. Fractures are the most common serious injury resulting from the fall. Extremity fractures compose the majority of fractures, followed by facial fractures, rib fractures, lumbar and thoracic vertebral fractures, cervical spine fractures, and fractures of the skull.
- Perform a careful neurologic evaluation.
- If possible, check for orthostatic blood pressure and pulse changes.
- Always check blood sugar for hypoglycemia.

Source: Terasita Hogan, MD, FACEP, Resurrection Medical Center, Chicago.

on the bigger picture.

"Falls are a sign of functional decline in the elderly. You need to have a different approach than with a 20-year-old who trips and falls but didn't break anything," Meldon says. "You need to find out why the patient fell and recognize that it may be a sign of a serious functional problem." Examples include syncope, stroke, or serious infection. (See **information on assessment for hidden pathology after falls, p. 126; and physical exam for falls, above.**)

Watch for patients who live alone

Be especially concerned about elderly patients who live alone. "We see 85- and 90-year-old patients who live by themselves, [and] tend to be women who outlive their husbands," notes Meldon. "You need to be very concerned about those patients, because it's not uncommon for them to fall and have no assistance for days."

Ask elderly patients who live alone if they have problems with walking or keeping their balance, suggests Meldon. A simple screening in the ED is the "get-up-and-go test." Simply observing the patient get off the bed and ambulate can help you assess the risk for falling, he recommends. "Those patients may need to get a 'call for help' button, which is an intervention

that nursing can do," Meldon suggests.

Perform a functional assessment to see if the patient is fit for discharge, Hogan recommends. "We send a lot of older people home with a sling on or crutches, but maybe now they've lost their ability to balance themselves and they'll fall," she warns. "We need to ask ourselves: Can this person function at their baseline, and with the added illness or injury that caused them to come to the ED?"

Address the fallen elderly patient's well-being. The patient may worry about loss of independence and significant deterioration of their overall health, notes **Kari Nash, RN, CEN, MICN**, associate trauma coordinator at Loma Linda (CA) University Medical Center. "They may worry incessantly over seemingly insignificant issues in relation to current events such as pets at home alone or groceries in the car," she explains. "It is very beneficial to the patient if the nurse can reassure them and get in touch with family early, to provide them with much-needed support."

Reference

1. Tinetti ME, Speechley M, Ginter SF. Risk factors for falls among elderly persons living in the community. *N Engl J Med* 1988; 319:1,701-1,707. ■

New ENA survey reports on over 1,600 EDs

Latest statistics on staffing, acuity, and ED services

The Emergency Nurses Association (ENA), in Park Ridge, IL, recently completed a study of 1,686 EDs throughout the nation for the third National Emergency Department Database Survey.

The EDs in the sample represent a wide diversity of geographic locations, community settings, facility ownership, and varying sizes of institutions, says **K. Sue Hoyt, RN, MN, CEN**, former president of ENA. The database sample ranged from the largest to smallest of the nation's EDs. (See **chart on size of responding facilities and chart of ED admissions to inpatient hospital, p. 128.**) Here are some key findings:

About one-fourth of the EDs reported 10,000 or less patient visits per year. Slightly less than half of the EDs reported visits in the 10,001 to 30,000 per year range. Larger patient volumes of 30,001 to 50,000 visits per year (18%) and over 50,000 visits per year (8%) were also reported.

- **Patient acuity.**

Between 1% and 10% of the ED patient population were emergent care patients in one-third of the EDs. Another third reported that between 11% and 20% of their patients were seen for emergent care problems. Another 14% of the EDs indicated that 21% to 30% of their patients were seen for emergent conditions.

Violence-related visits have increased in 45% of the EDs. In contrast, alcohol-related visits and illegal drug-related visits have not changed in about one-half of the EDs.

• New construction or remodeling.

About an equal number of ED anticipated construction within the next two years (45%) as those with no construction planned (41%).

The remaining EDs (14%) expected changes to their physical plant within the next three to 10 years.

• Computerization.

The activities that were computerized in more than 25% of the EDs included: patient registration (89%), order entry (68%), charge capture (50%), management reports (50%), and computerized medical records.

More recent computer applications for patient tracking (29%) and discharge instructions (31%) were available in EDs.

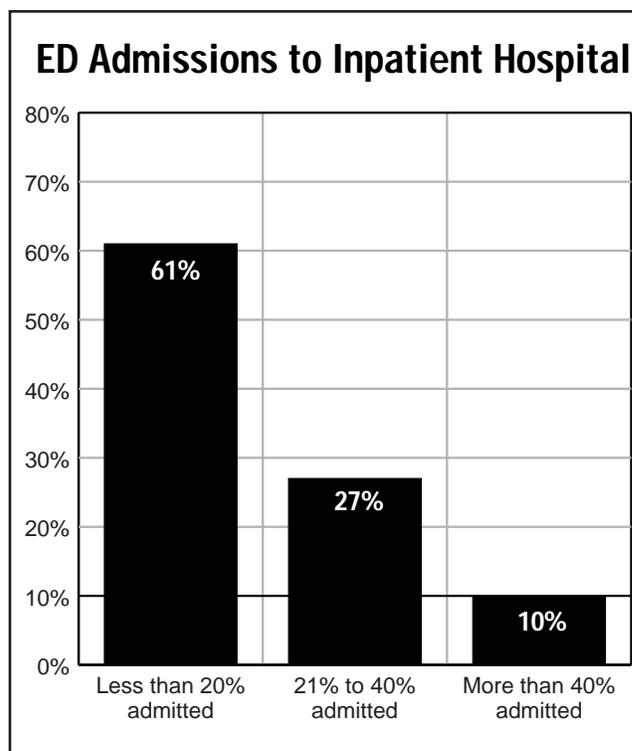
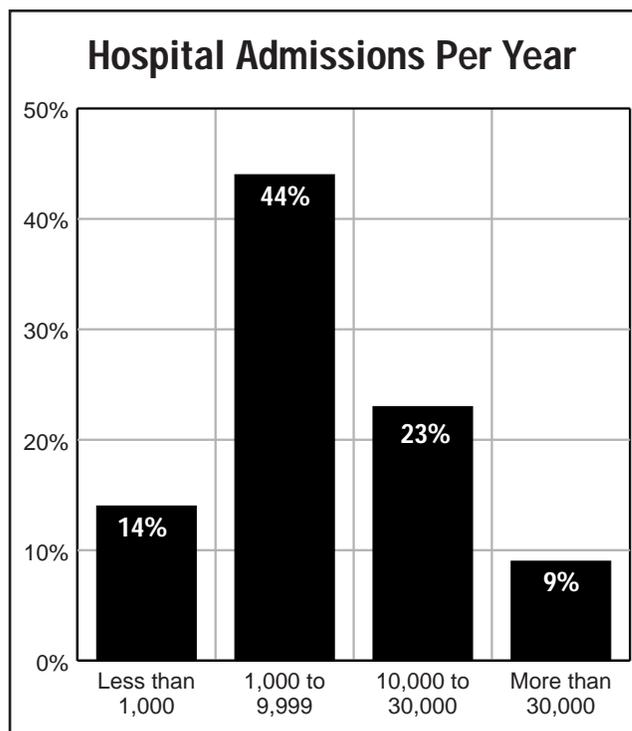
The percentage of EDs using computerized systems for those seven activities increased between 1% and 7% between 1996 and 1997, the last year for which figures are available.

When patient registration was not computerized, there were four types of institutions that used paper/manual systems more than other institutions. These facilities were rural, state or local government facilities, small institutions, and small EDs.

• Clinical documentation.

Computer applications for clinical documentation were present in some EDs but is still very limited. Medical assessments (14%), diagnoses (12%), interventions (10%), and outcomes (12%) were computerized in less than 15% of the EDs.

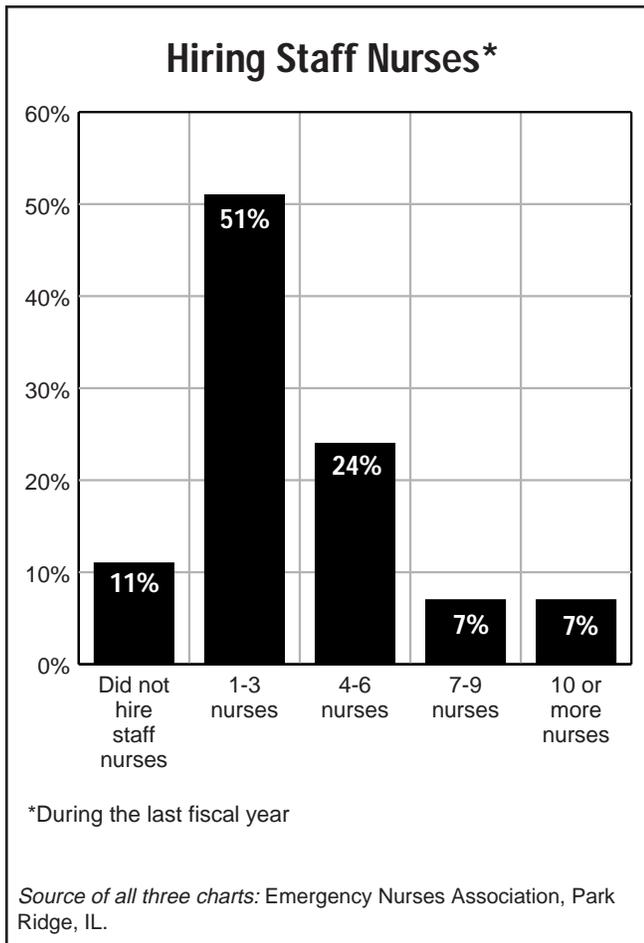
Nursing assessments were rarely documented using computerized systems. Nursing diagnosis was the information that was most frequently collected



EXECUTIVE SUMMARY

The third consecutive survey of EDs nationwide was recently published by the Emergency Nurses Association in Park Ridge, IL.

- Violence-related visits have increased in 45% of the EDs.
- The percent of EDs that reported downsizing staff nurses increased to 15% in 1996 from 9% in 1995, but decreased to 12% in 1997.
- More than 25% of EDs used computerized patient registration, order entry, charge capture, management reports, and medical records.
- During their last fiscal year, 89% of the responding EDs reported hiring staff nurses.



but not documented in EDs (6%).

Registration, order entry, charge capture, and management reports were computerized more often, with patient tracking and discharge instructions showing an increase of 4% and 5% respectively.

• Staff.

The number of nurse managers increased as the size of the ED visits increased. The FTEs for nurse managers ranged from zero to 11, with the most common number being one manager per ED. Only EDs with greater than 100,000 visits reported a mean of three nurse managers.

Nursing personnel in specialty roles who worked each week in the ED included staff development educators (25%), trauma coordinators (22%), nursing faculty (12%), clinical nurse specialists (9%), nurse practitioners (12%), case managers (13%), nurse researchers (2%). (See chart on EDs that reported hiring staff nurses, above.)

In comparison to the 89% of EDs that hired staff nurses, 77% also reported that there was no downsizing of staff nurses in their institution. Staff nurses were downsized in 11% of the institutions.

The percent of EDs that reported downsizing staff nurses increased to 15% in 1996 from 9% in 1995, but

decreased to 12% in 1997.

• Specialty services.

Observation care flexible beds were used in 27% of the EDs, with 1-3 beds the most frequent response. Observation care adult beds were used in 10% of the EDs. Observation units have remained about the same in 1997 (27%) and 1996 (26%).

Fast-track flexible beds were used in 38% of the EDs.

Specialty beds reported were obstetrics/gynecology (69%), cardiac (65%), trauma (63%), orthopedic (53%), isolation (48%), decontamination (32%), respiratory (31%), psychiatric (31%), and burn (17%).

Specialty beds are up

Compared to 1996 data, there was an increased percentage of the 1997 EDs reporting beds in all specialty bed categories, from 1% to 5%.

Specialty services provided by the EDs included: rape intervention (35.5%), pediatrics (25.6%), trauma programs (25%), hospital-based EMS programs (24%), mental health centers (20%), chest pain centers (18%), urgent care centers (17%), toxicology poison centers (13%), HAZMAT response teams (11%), flight

Subscriber Information

Customer Service: (800) 688-2421 or Fax (800) 284-3291.
World Wide Web: <http://www.ahcpub.com>.
E-mail: customerservice@ahcpub.com.

Subscription rates: U.S.A., one year (12 issues), \$299. With approximately 18 CE contact hours, \$349. Outside U.S., add \$30 per year, total prepaid in U.S. funds. One to nine additional copies, \$239 per year; 10 or more additional copies, \$179 per year. Missing issues will be fulfilled by customer service free of charge when contacted within 1 month of the missing issue date. Back issues, when available, are \$48 each. (GST registration number R128870672.) Photocopying: No part of this newsletter may be reproduced in any form or incorporated into any information retrieval system without the written permission of the copyright owner. For reprint permission, please contact American Health Consultants®. Address: P.O. Box 740056, Atlanta, GA 30374. Telephone: (800) 688-2421 ext. 5491, Fax: (800) 284-3291.

ED Nursing™ (ISSN 1044-9167) is published monthly by American Health Consultants®, 3525 Piedmont Road, N.E., Six Piedmont Center, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodical postage paid at Atlanta, GA. POSTMASTER: Send address changes to ED Nursing™, P.O. Box 740059, Atlanta, GA 30374-9815.

ED Nursing™ is approved for approximately 18 nursing contact hours. This offering is sponsored by American Health Consultants®, which is accredited as a provider of continuing education in nursing by the American Nurses' Credentialing Center's Commission on Accreditation. Provider approved by the California Board of Registered Nursing, Provider Number CEP 10864, for approximately 18 contact hours.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Editor: Staci Bonner.
Group Publisher: Brenda Mooney.
Managing Editor: Joy Daughtery Dickinson, (joy.daughtery@medec.com).
Associate Managing Editor: Suzanne Zunic, (suzanne.zunic@medec.com).
Production Editor: Nancy McCreary

Copyright © 1999 by American Health Consultants®, ED Nursing™ is a registered trademark of American Health Consultants®. The trademark ED Nursing™ is used herein under license. All rights reserved.

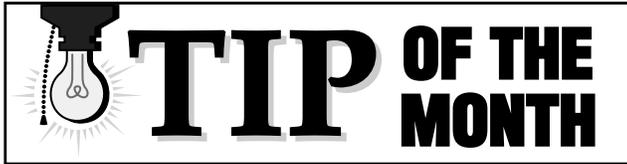
Hours of operation:
8:30 a.m. - 4:30 p.m.

Editorial Questions

For questions or comments, call Joy Daughtery Dickinson at (912) 377-8044.

programs (10%), family violence centers (7%), and respiratory centers (7%).

[Editor's Note: To obtain a copy of the 1997 ENA Emergency Department Database Survey, which costs \$500 plus \$20 shipping and handling, contact ENA, 216 Higgins Road, Park Ridge, IL 60068-5736. Telephone: (847) 698-9400. Fax: (847) 698-9407. E-mail: smaclean@ena.org.] ■



Quickly cool off heat stroke patients

Heat stroke is a life-threatening emergency: If the patient is at risk for seizures, cardiac arrhythmia and death could occur if they are not cooled quickly, stresses **Renee Holleran**, RN, PhD, chief flight nurse and clinical nurse specialist at Cincinnati Medical Center.

A quick and simple method for cooling patients involves removing all of the patient's clothes, covering them with wet sheets, and directing a large fan to blow over the patient's body, she suggests.

Heat will dissipate by evaporation and convection from the patient's body. Monitor the patients closely so their body temperature does not drop too quickly, which might cause further complications.

This method is one of the fastest, safest, and least expensive to cool heat stroke patients, says Holleran. "Sometimes people use ice or ice baths, which could potentially cause injury to the skin and cool the patient too fast," she warns. ■

Readers are invited

Readers are invited to submit questions or comments on material seen in or relevant to *ED Nursing*. Send your questions to: Reader Questions, *ED Nursing*™ c/o American Health Consultants, P.O. Box 740056, Atlanta, GA 30374. Or, you can reach the editors and customer service personnel via the Internet by sending mail to: joy.daughtery@medec.com. You can also visit our home page at <http://www.ahcpub.com>. We look forward to hearing from you. ■

EDITORIAL ADVISORY BOARD

Consulting Editor: Renee Holleran, RN, PhD
Chief Flight Nurse, Clinical Nurse Specialist
Cincinnati Medical Center, Cincinnati

Kay Ball,
RN, MSA, CNOR, FAAN
Perioperative Consultant/Educator
K&D Medical
Lewis Center, OH

Darlene Bradley,
RN, MSN, MAOM, CCRN, CEN
Clinical Director
Emergency/Express Care
Services
Loma Linda University Medical
Center & Children's Hospital
Loma Linda, CA

Colleen Bock-Laudenslager,
RN, MSN
Consultant
Bock-Laudenslager & Associates
Redlands, CA

Sue Dill Calloway, AD, BA,
BSN, RN, MSN, JD
Director of Risk Management
Ohio Hospital Association
Columbus, OH

Liz Jazwiec, RN
President
Liz Jazwiec Consulting
Crestwood, IL
Linda Kosnik, RN, MSN, CEN,
Unit Manager
Overlook Hospital
Summit, NJ

Gail P. Loadman, RN, CEN
Director, Emergency Services
Riverside Methodist
Hospitals
Riverside Campus
Columbus, OH

Larry B. Mellick,
MD, MS, FAAP, FACEP
Chair & Professor
Department of Emergency
Medicine
Director of Pediatric
Emergency Medicine
Medical College of Georgia
Augusta, GA

Barbara M. Pierce, RN, MN
Divisional Director of Emergency
Services
Children's Hospital
Birmingham, AL

Judy Selfridge-Thomas, RN,
MSN, CEN, FNP
Family Nurse Practitioner
St. Mary Medical Center
Department (Urgent Care)
Long Beach, CA
General Partner
Selfridge, Sparger,
Shea & Associates
Ventura, CA

CE Objectives

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

1. Identify clinical, regulatory, or social issues relating to ED nursing. (See in this issue: *Know the difference between delirium and dementia; Quickly cool off heat stroke patients.*)
2. Describe how those issues affect nursing service delivery. (See *Elderly patient numbers are up — You'll need your detective cap.*)
3. Cite practical solutions to problems and integrate information into the ED nurse's daily practices, according to advice from nationally recognized experts. (See *Don't underestimate the danger of falls.*) ■