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A MONTHLY CLINICAL UPDATE ON EMERGENCY NURSING

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Statement of Financial Disclosure: **Stacey Kusterbeck** (Author), **Coles McKagen** (Executive Editor), **Joy Daughtery Dickinson** (Senior Managing Editor), and **Darlene Bradley** (Nurse Planner) report no consultant, stockholder, speaker's bureau, research, or other financial relationships with companies related to this field of study.

Don't make dangerous mistakes with elder vital sign assessment

Assumptions might be wrong

A heart rate in the 60s might be the expected result of a patient on a beta blocker. "But, it may really be a masked tachycardia limited by the medication," says **Barb Smith**, RN, BSN, MSA, CEN, trauma program manager at Botsford Hospital in Farmington Hills, MI.

Likewise, a blood pressure of 120/80 is considered to be normal in a healthy adult, but it might be hypotensive in an elder whose "normal" is much higher due to their peripheral vascular disease.

If you don't take a patient's age into account, information you obtain at triage can be misleading. "Age-related changes, co-morbidities, and medications can limit the physiologic responses seen in this age group," says Smith. She suggests asking these questions of elders at triage:

- Does the patient have any pre-existing medical conditions such as chronic obstructive pulmonary disorder, diabetes, or cardiac disease, which might put them at higher risk for complications?
- What medications do they take? Are they taking warfarin, clopidogrel, or aspirin that might lead to bleeding or further injury? "Older adults are frequently on anticoagulant medications, which may result in coagulapathies and bleeding into the brain or fractures sites," says Smith.
- What is their baseline neurologic status?
- Does the patient have advanced directives?
- If patient was injured, what is their mobility and functioning status prior to the injury? Do they use assistive devices such as a cane or a walker? How did the injury happen?

SPECIAL ISSUE ON GERIATRIC ED PATIENTS

This is a special issue on caring for elder patients in the ED. We tell you how to meet the unique needs of elder stroke, seizure, and psychiatric patients. We give strategies to reduce risks of medication interactions and handoffs, and we share how to improve your assessment of traumatic brain injuries and vital signs. Next month's issue will cover stroke care in elders and report on triage practices, waiting room safety, and assessment of fall injuries. The staff of *ED Nursing* hope this critically important information improves the quality of your patient care and improves your patient satisfaction.

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• If a fall occurred, were there any signs or symptoms such as chest pain, palpations, dizziness, or weakness prior to the fall that might need further diagnostics?

"Medical disease symptoms can frequently lead to falls and injuries in the elderly population," says Smith. To improve your assessment of elders:

Perform frequent neurological assessments, including a Glasgow Coma Scale.

"This can help to identify subtle changes early," says Smith. "The aging process leads to a decreased cerebral blood flow and cerebral atrophy. This makes the brain more susceptible to injury."

Have a high index of suspicion for pulmonary complications.

The elderly have a loss of pulmonary reserves that predispose them to pulmonary complications, says Smith. They have a decreased cough reflex, and they have decreased diaphragm and respiratory muscle strength.

"Falls that result in rib fractures can be detrimental to the elderly patient," Smith says. "They increase the risk of mortality and pneumonias, due to limited pulmonary reserves."

Closely monitor pulse oximetry level, lung sounds, and respiratory status.

"This is important, as hypoxia can be very harmful," says Smith. She recommends giving supplemental oxygen to keep pulse oximetry above 90%, to improve the oxygen carrying capacity of the existing hemoglobin.

Keep in mind that some older patients have preexisting anemia with a decreased oxygen transporting capacity. "This is further stressed by a trauma such as a fracture, which may lead to angina or myocardial infarction," says Smith. "Blood loss from a femur fracture can result in 1500 milliliter blood loss. A humerus or tibia may lose 750 milliliters. Pelvis fractures can be life-threatening, and large blood loss is possible."

Always look for a cause for change in mental status.

Slower speed of cognition is a normal change for elders, but an abrupt change in thinking, memory, motor skills, or confusion can certainly be from acute illness, infection, electrolyte abnormality, or medications, warns **Karen Hayes**, PhD, ARNP, assistant professor at the School of Nursing at Wichita (KS) State University.

"Changes in neurologic assessment need to be verified by family, primary care providers, or other caregivers," Hayes says. *(See related story on blood pressure assessment, p. 99.)*

Are vitals really "normal?"

"Physiologic aging leads to changes in what we might consider 'normal' vital signs," says Hayes. She gives these examples:

• Increased peripheral vascular resistance raises

EXECUTIVE SUMMARY

When assessing vital signs in elders, consider age-related changes, comorbidities, and medications. Some recommended interventions:

• Perform frequent neurological assessments to identify subtle changes.
• Suspect pulmonary complications.
• Remember that a normal blood pressure might represent shock in a normally hypertensive patient.

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blood pressure.

"Many older adults on anti-hypertensive medications may not respond to events which would normally elevate measured blood pressure," says Hayes.

• A decrease in heart rate, or minimal increase in heart rate, might be an unrecognized response to stress.

"Therefore, using heart rate as an indicator of fever, sepsis, hypovolemia, hypervolemia, and pain may be unreliable in older adults," says Hayes.

• Thermoregulatory responses to heat or cold are impaired.

"Ill elders may have lower core body temperatures because of the environment or the cold intravenous fluids we infuse," says Hayes.

• Breathing tends to be more rapid and more shallow than younger adults because of less respiratory reserve.

"Elders are less likely to recognize the sensation of dyspnea and can mask impending respiratory failure," says Hayes. "There is a generalized decrease in arterial oxygen levels." ■

CLINICAL TIP

Don't be fooled by 'normal' blood pressure

In your elder patient, changes in the aging myocardium cause the heart to be a less than effective pump.

"Cardiac output and stroke volume decrease," says **Barb Smith**, RN, BSN, MSA, CEN, trauma program manager at Botsford Hospital in Farmington Hills, MI. "There is a decrease in coronary blood flow related to atherosclerosis and a decrease in the conduction rates."

In addition, the compensatory mechanisms for shock, such as an increased heart rate, are frequently not seen. This situation is due to beta blockers, calcium channel blockers, or other cardiac medications that the elderly patient might be taking.

"A normal blood pressure may represent shock in a patient that is normally hypertensive," says Smith. ■

Current stats on elders in EDs

In 2006, 48 of every 100 patients visiting EDs were older than age 65, according to the latest available statistics from the Centers for Disease Control and Prevention. In 2006, 17% of ED visits were by elderly patients, according to the Nationwide Emergency Department Sample of the Agency for Healthcare Research and Quality's Healthcare Cost and Utilization Project.

Another study on the changing populations of ED patients reports that between 1996 and 2005, geriatric patients was one of the groups that increased significantly.[1]

"The best we can tell, these trends are going to continue," says **Mary Pat McKay**, MD, MPH, associate professor of emergency medicine and public health at the George Washington University Medical Center in Washington, DC. "Absolute numbers will compound, as both the visit rate and the number of persons over 65 increase. Since there is no plan to significantly increase the availability of ED beds, overcrowding will only increase."

REFERENCE

1. Xu KT, Nelson BK, Berk S. The changing profile of patients who used emergency department services in the U.S.: 1996-2005. *Ann Emerg Med* 2009; 54:805-810. ■

Don't make assumptions about older psych patients

You might overlook medical conditions

If a 65-year-old patient came to you with acute visual hallucinations but no behavioral health care history, what would you suspect?

EXECUTIVE SUMMARY

You might wrongly assume that an older patient's complaint is psychiatric, based on their initial presenting symptoms. To avoid this:
- Communicate with a family member or health care provider who knows the patient.
- Obtain a CT scan of the brain to rule out medical issues.
- Obtain a complete medication history.

"I assessed the patient subjectively and found several bruises on both upper and lower extremities," recalls **Maria C. Boyes**, BSN, RN, a psychiatric liaison nurse at Northwest Community Hospital in Arlington Heights, IL. "When asked where she got these bruises, the patient told me she fell the night before, tripping on a rug while letting her dog in."

The ED physician was informed, and a CT scan of the brain was performed. This showed cerebral inflammation with a possible bleed. "This was the cause of her visual hallucinations," says Boyes. "The patient was admitted to the critical care unit and was there for weeks."

If the patient had mistakenly been admitted to the psychiatric unit, she could have ended up in a coma or possibly died, says Boyes.

Don't assume

If you fail to obtain adequate information about the patient's medical history and medications, you might wrongly assume the patient is a psychiatric patient based on the initial presenting symptoms in the ED, warns Boyes.

"Most elder psychiatric patients seen in the ED present with severe depression with suicidal ideations, and behavioral problems with agitation and psychosis," she says. "These patients need somebody — a family member or a health provider — who knows them and who can communicate their needs to ED staff."

A proper mental health diagnosis should be carefully given after thorough medical, physical, and psychiatric assessments, says Boyes. "Some factors that can be overlooked are their medical diagnosis, their medications and health history," says Boyes. "That is why our ED physician orders medical testing, including a CT scan of the brain, to rule out medical issues causing their psychiatric symptoms." ■

SOURCE

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Elders with seizures might surprise you

Symptoms differ by age

Do you suspect your elder patient is having a seizure? "Remember that presenting clinical features differ between the old and young," says **Alison Hofheinz,** RN, MSN, CPNP, a clinical nurse specialist in Bronson Methodist Hospital's Trauma & Emergency Center in Kalamazoo, MI. Hofheinz says to keep in mind these three things, Hofheinz says:

1. The elderly often present with vague complaints such as altered mental status, confusion, and memory difficulties.

"This may lead to delays in diagnosis due to large differentials and multiple co-morbidities," says Hofheinz.

2. Although complex partial seizures are the most common type of seizure in elders, they often lack the aura common with presentation in young people.

"They may report non-specific prodromal symptoms such as dizziness," says Hofheinz.

3. Automatisms occur less frequently, and postictal state and confusion might be prolonged.

Stephanie Bayma, RN, a seizure nurse at Bronson Neurology in Kalamazoo, says, "These differences may be related to the fact that often in the elderly, the complex partial seizures arise from the frontal lobe rather than the temporal lobe, as often is the case with their younger counterparts." ■

EXECUTIVE SUMMARY

Elders with seizures present differently than younger patients. You're more likely to see:
- vague complaints;
- complex partial seizures;
- prolonged postictal states.

SOURCE

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Do your part to stop harmful drug interactions

Elders might unintentionally overdose

Elders often have duplicate prescriptions and might take herbal supplements without telling ED nurses, warns **Carol Howat**, RN, BSN, CEN, clinical educator for the ED at Northwest Community Hospital in Arlington Heights, IL.

"Approximately 30% of patients older than 65 years take more than eight prescribed drugs each day," says Howat. "These account for 50% of all reported adverse drug reactions."

Howat says that medication reconciliation is "one easy intervention the nurse can use to decrease unnecessary complications for the elderly patient." Use these strategies:

• Involve local physicians.

Elder patients usually bring in their medications or verbally give the triage nurse a list of what they are taking, says **Debbie Eckles,** RN, CEN, a clinical resource nurse in the ED at Santa Ynez Valley Cottage Hospital in Solvang, CA. However, if the patient is unable to do this, ED nurses don't hesitate to obtain the information from the patient's doctor.

"Our local physicians have partnered with us to provide their patients with medication lists," says Eckles. "We encourage patients to keep these lists current and bring them in with them to the ED."

• Ask emergency medical technicians (EMTs) to bring medication information.

For example, a magnet listing medication information might be attached to the patient's refrigerator. "The EMTs are trained to look for these and bring them into the ED with the patient," says Eckles.

• Identify unintentional overdoses.

The reconciliation process done in the ED sometimes uncovers duplicate prescriptions or multiple dosages, says **Bruce Read**, PharmD, Santa Ynez Valley's clinical pharmacy manager. "Patients may be taking drugs that may interact if taken at the same time," adds Read. "If there are duplicate medications, we do request that the patient surrender the medications that are no longer needed. However, this is voluntary."

• Be specific.

ED nurses specifically should ask about herbal preparations, supplements, and non-prescription drugs in addition to prescription medications, says Read.

• Involve the hospital pharmacist.

At Santa Ynez, ED nurses have access to a pharmaceutical database which is specifically designed to analyze multiple medications for drug interactions. "However, the pharmacist is usually the person that enters the drugs in question and then provides a printed report to the nurse and emergency physician," says Read. The report indicates potential drug interactions, so that medication changes may be made.

"This information is vital to help prevent untoward effects of the multiple medication regime that most seniors must manage," says Read.

• Make it easy for patients to bring medication information.

ED nurses at St. Joseph's Hospital Health Center in Syracuse, NY, encourage patients to bring a list of their current medications, says **Jessica Caruso,** RN, an ED nurse at the hospital.

If a patient doesn't have a list, however, ED nurses offer a blank wallet-size medication history card. "For patients who arrive with bags of medications, the ED nurse records those medications on a medication history form," says Caruso. *[The medication card used by ED nurses is included with the online version of this month's* ED Nursing. *For assistance, contact customer service at (800) 688-2421 or customerservice@ahcmedia.com.]*

• Use a medication reconciliation technician.

At St. Joseph's ED, this individual interviews patients and family members on current medication histories. "All personal medication history

EXECUTIVE SUMMARY

Your elder patient might take herbal supplements or duplicate prescriptions without telling you. To avoid complications:
• Remember that dietary supplements can increase the risk of bleeding when taken with aspirin or anticoagulants.
• Involve local physicians and emergency medical technicians.
• Ask specifically about non-prescription drugs and supplements.

SOURCES

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forms are photocopied for the pharmacist and the medication reconciliation technician to review," says Caruso. *(See related stories on calcium channel blockers, and specific types of drug interactions to watch for, below and right)* ■

Warn elders of these drug risks

Changes in vision, memory, and psychomotor abilities are three factors putting the elderly at high risk for an unintentional overdose of medication.

"The elderly patient may not be informed about the risk of drug-food interactions or drug-dietary supplements," says **Carol Howat**, RN, BSN, CEN, clinical educator for the ED at Northwest Community Hospital in Arlington Heights, IL. Keep these things in mind, says Howat:

• Administration of procedural sedation or rapid sequence intubation medications puts the elderly patient at a higher risk if incremental dosing is not practiced.

• Several dietary supplements suppress platelet aggregation. "This can increase the risk of bleeding when taken with aspirin or anticoagulants," says Howat.

• Age-related changes in the gastrointestinal system decrease the efficiency at which drugs and alcohol are metabolized. "This places the elderly at risk for accumulation of drugs to toxic levels," says Howat.

• The urologic and renal systems compensatory response to acid-base changes is decreased. "This makes prevention or correction of shock states more challenging," says Howat. ■

CLINICAL TIP

Inform elders about grapefruit juice

Many elderly patients take calcium channel blockers for hypertension or angina, but grapefruits or grapefruit juice can inhibit the metabolism and excretion of these drugs, warns **Carol Howat**, RN, BSN, CEN, clinical educator for the ED at Northwest Community Hospital in Arlington Heights, IL.

"They can reduce the liver's ability to eliminate calcium channel blockers from the body, allowing the medications to build up," she says. "This causes an increased drug level or toxic affect such as atrioventricular heart block, hypotension, and bradycardia." ■

Ask these questions for traumatic brain injuries

Older patients at high risk

ED nurses are caring for increasing numbers of elders with traumatic brain injuries, mostly due to fall injuries, says a report from the Centers for Disease Control and Prevention (CDC).[1] Adults 65 years and older are one of the groups at particularly high risk for traumatic brain injury, says the report, and 61% of these injuries were caused by falls.

"The CDC has been studying traumatic brain injuries among older Americans for a while," says **Victor Coronado**, MD, MPH, one of the study's authors and medical officer in the CDC's Division of Injury Response. "This is a concern as the U.S. population ages. There are more persons 65 and older who will be at risk for falls."

Signs and symptoms of traumatic brain injury might mimic other more common medical conditions, says **Teresa Mancuso**, RN, an ED nurse at

Baptist Hospital of South Florida in Miami. "Or if the patient has neurologic deficits present at the time of injury, it may be difficult to ascertain additional injury," Mancuso adds.

Baptist's ED nurses use a head injury algorithm at triage to identify patients at high risk for a traumatic brain injury. These include patients older than 60, a Glasgow Coma Scale score of less than 15, individuals on anticoagulation therapy, and patients who have lost consciousness.

"The triage nurse must understand that older patients are at a high risk for traumatic brain injury, due to cerebral atrophy and other brain diseases," says Mancuso.

In addition, older patients often have medical conditions or medications that predispose them to falls. These include decreased vision, unsteady or weak gaits, confusion, or certain medications such as pain medications or sleeping pills, says Mancuso.

Rule out brain bleed

"Any patient falling under the high risk category must have a brain CT to rule out a brain bleed," says Mancuso. "Coagulation values are valuable as well, to detect risk for bleeding."

These practices impacted the outcome of a 93-year-old man who came to the ED with a forehead laceration and a Glasgow Coma Scale score of 15. Although he denied any pain or dizziness, the patient reported falling.

"Due to the fact that he fell under our high risk category, he had labs drawn and was sent to CT," says Mancuso. "He was positive for a subdural hematoma and was admitted to the intensive care unit. This patient had a good outcome because of our emergency room standards." *(See related stories on potential undertriage and important questions to ask your patient, both right.)*

EXECUTIVE SUMMARY

You are likely to see increasing numbers of elders with traumatic brain injuries, mainly due to fall injuries. To improve your assessment, remember that:

- Patients older than 60, individuals on anticoagulation therapy, and patients who have lost consciousness are at high risk.
- A brain CT should be obtained to rule out a subdural hemotoma.
- Patients might present neurologically intact.

SOURCE

For more information on elders with traumatic brain injury, contact:

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REFERENCE

1. Faul M, Xy L, Wald MM, et al. Traumatic brain injury in the United States: Emergency department visits, hospitalizations and deaths 2002-2006. Atlanta: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2010.

CLINICAL TIP

Don't rule out TBI even with GCS of 15

A patient might present to you neurologically intact, even if she has a traumatic brain injury (TBI), says **Teresa Mancuso**, RN, an ED nurse at Baptist Hospital of South Florida in Miami. Your patient's Glasgow Coma Scale (GSC) score initially might be a 15.

"The onset of signs and symptoms of a traumatic brain injury may occur days or weeks later," says Mancuso. "In these cases, a fall may not be associated with these signs and symptoms, and a patient may be under-triaged." ■

Ask these questions if TBI is possible

If you suspect a traumatic brain injury (TBI) is possible in your elder patient, after performing a neurologic exam, these are the most relevant questions to ask, says Teresa Mancuso, RN, an ED nurse at Baptist Hospital of South Florida:

• Is this patient on anti-coagulant therapy?
• Did this patient lose consciousness?
• What is the patient's neurological baseline?
• Did this patient sustain a laceration or have bruising in the head or facial areas?
• Does this patient have any pertinent medical history such as coronary artery disease, atrial fibrillation, or pacemaker placement that requires them to be placed on anticoagulant therapy?
• Did the person fall due to dizziness or lightheadedness? "If so, an EKG is warranted to rule out cardiac involvement," says Mancuso.
• Does this patient remember the event? ■

Dangerous handoffs with elders must end

Information often inaccurate

There is no question that handoffs between long-term care facilities and EDs are high-risk times for elder patients. "Transfers because of an acute deterioration of the patient can result in a lack of communication related to pertinent history, medications, allergies, and code status," says **Samuel Shartar**, RN, CEN, director of the ED at Emory University Hospital in Atlanta.

Patients from long-term care facilities are often fragile, and a clear, accurate report is essential, says **Judy Maxwell**, RN, an ED nurse at Cheyenne (WY) Medical Center. "If we have a clear picture of the situation, we can proceed with definitive care. Because the elderly are compromised, they can get septic from the tiniest infection. Care needs to be aggressive and definitive."

Getting the "whole picture" of the patient might mean a better outcome, Maxwell says. "All who take care of the patient should consider this a team effort," she says.

EXECUTIVE SUMMARY

Information on elders transferred from long-term care facilities might be incomplete, misleading, or inaccurate. To protect patients during these high-risk handoffs:
• Identify the appropriate spokesperson for the patient.
• Be clear about the patient's advanced directive status.
• Use formal transfer forms.

Elders might be poor historians due to their cognitive status. **Kelly Chasteen**, RN, associate chief nursing officer at Wesley Woods Geriatric Hospital in Atlanta, says, "Their ability to advocate for themselves or give correct information may be limited."

Information from the long-term care facility might be incomplete, have too much detail so that important information is easily overlooked, or it might come in a different format than the ED uses, either electronic or manual. "The patient may also have multiple care providers and care settings," Chasteen says. "They may go offsite for some portion of their care, or practitioners may come to the facility. It's not one-stop shopping for all their information."

Poor assessments

Information from long-term care facilities, whether verbal or written, might not be complete. **Karen Smith**, MS, RN, CEN, director of emergency services at Newport (RI) Hospital, says, "We can get some inaccurate assessments from the staff. Validate what they've said with what you see on arrival."

Reports might lead ED nurses to believe a patient is in an emergency situation, but the patient is stable on arrival. "Or, we can get a report that says that the patient is basically in good shape but had a little difficulty breathing, and they are just about ready to code when they get here," says Smith. "There are sometimes things we would have expected to hear about that get skipped. Medication sheets may be very difficult to read."

Staff at the facility might lack essential information about the current status of the patient, or the information might be misunderstood, says **Jacquelyn Byrd**, MSN, RN-BC, an ED clinical nurse specialist at Emory University Hospital -- Midtown, in Atlanta. "A formal handoff usually does not occur between the ED staff and the long-term care facility," says Byrd. "Often, the information that you receive is coming 'second-hand' from emergency medical service [EMS] personnel transporting the patient." EMS, though, might have only information regarding the current reason why the patient is being sent to the ED, without any additional history.

Eileen Brassil, RN, clinical coordinator for the ED at Northwestern Memorial Hospital in Chicago, says, "Sometimes when we take a call from a facility, the person giving the report can't provide

SOURCES & RESOURCES

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• **Karen Smith**, MS, RN, CEN, Director, Emergency Services, Newport (RI) Hospital. Phone: (401) 845-1205. E-mail: ksmith3@lifespan.org.

• Practical Guide to Safer Handoff of Older Adults between Long-Term Care Facilities and Emergency Departments, which includes sample customizable forms, can be ordered on the Emergency Nurses Association (ENA) web site, www.ena.org. Click on "Shop," then "Institute for Quality, Safety & Injury Prevention," or call the Member Services Department at (800) 243-8362, or send a fax to (847) 460-4002. The publication is free for ENA members and $24.95 for non-members. The product is electronic and will be sent by e-mail.

an adequate history on the patient or why they're coming. You have to hunt for that information. It can really slow down the overall process."

Use of formal transfer forms can help to obtain necessary information consistently. Shartar says, "These can be faxed to the ED after EMS has left, to prevent transport delays in an emergency." *(See stories on what to ask during verbal reports, below, ED nursing assessment of transferred elders, right, and written reports, p. 106.)*

On the phone, obtain this info

When taking a phone report about an elder patient being transferred to your ED, you might find yourself frustrated. One reason is that the skill set or knowledge of the long-term care facility employees might be lacking.

"They might not have a RN-heavy facility. So when they give a patient's history, they might get terms incorrect or trip up over medical language," says **Eileen Brassil**, RN, clinical coordinator for the ED at Northwestern Memorial Hospital in Chicago. Here are some good approaches for this scenario:

• Obtain as much information from the long-term care facility employee as possible while they're still on the phone with you.

"And, get the name and direct phone number of the person giving the report. Follow up with them should additional questions arise," says Brassil.

• Determine if there are simple interventions they haven't yet tried with patients.

For example, ask if they have tried giving acetaminophen to relieve pain, says Brassil.

• Use a standard set of questions.

Jacquelyn Byrd, MSN, RN-BC, an ED clinical nurse specialist at Emory University Hospital -- Midtown, in Atlanta, says, "Gather pertinent information about the patient, including mental status and level of alertness. When possible, speak directly with the primary care provider for the patient." ■

Good assessment led to good outcome

Recently, **Judy Maxwell**, RN, an ED nurse at Cheyenne (WY) Medical Center, cared for a woman brought by ambulance from a long-term care facility. She was told only that the patient had started running a fever that progressively got worse.

"Tylenol was not helping, and the patient's mental status was now changing," says Maxwell. "Upon admission, she had a fever of 103." ED nurses did these interventions:

• Intravenous hydration was immediately started. Nurses obtained blood with cultures. A CT was performed.

• A head-to-toe assessment was done. "The nurse found three large ulcers on her hips and coccyx, and two small ulcers on the thoracic spine," says Maxwell. "All were draining, and two were advanced." The ED physician was notified, along with wound care.

• Blood results came back, showing a white blood cell count of 25,000. Antibiotics were started.

"The care of the patient took just a little over an hour. The patient was then admitted to the intensive care unit," says Maxwell. "After one week, the patient returned to her nursing home." ■

Get 'must-have' info on elders in the ED

To obtain "must have" information for handoffs involving transferred elders, **Kelly Chasteen**, RN, associate chief nursing officer at Wesley Woods Geriatric Hospital in Atlanta, recommends using an abbreviated form.

"You need to get a complete picture of what is going on with the patient," Chasteen says. The form should give you:

• Contact information for key decision-makers.

An in-person or phone consultation can be done as needed. "If the patient is unable to make decisions for him or herself, you need to know the appropriate spokesperson," says Chasteen.

• The patient's advanced directive status, such as do not resuscitate, durable power of attorney, or living will.

"This is often ambiguous, and you need to know their wishes," Chasteen says.

• Important facts about the patient's medical history.

Elder patients might have complex histories and multiple comorbid conditions. "With more factors to consider, history taking is more difficult," says Chasteen. ■

Beta blockers may mask symptoms in septic elders

Drug creates 'misleading picture'

Do you expect to see tachycardia in a septic patient? Don't forget that this response will be masked in elders taking beta blockers.

"A large majority of elderly patients are on beta blockers, which can keep pulse at a normal rate even when the patient is septic," says **John Provost,** an ED nurse at St. Joseph's Hospital and Medical Center in Phoenix. "It is of the greatest importance to recognize and treat sepsis, as mortality is 50%."

EXECUTIVE SUMMARY

Beta blockers cause reduced heart rate and lower blood pressure, which can mask symptoms of sepsis in elders. To improve your assessment, remember that:

- Fever might be the only presenting symptom, or it might not be present at all.
- Look for less obvious signs of sepsis.
- Have a heightened vigilance for signs of deterioration.

Fever might be the only presenting symptom, early on, in an elder patient turning septic or already in a septic state, adds Provost. In this case, you should suspect sepsis in addition to a simple viral infection or urinary tract infection.

"Many times, the initial thought is the most positive thought in regard to the patient," says Provost. "It is paramount that further investigation is done to conclude the proper diagnosis." *(See clinical tip on fever in elders, p. 107.)*

Confusion is common

Confusion related to a condition such as urinary tract infection is common in elderly patients, adds Provost. "This is not often seen in younger patients," he says.

Provost says to "look for hypotension first and foremost." Also look for confusion, somnolence, and fever. "From my experience, about half the time an obvious offender will present with the patient leading the care team to the infection. The other times, it's the quick response of the care team obtaining blood and urine samples which leads to the diagnosis of sepsis," says Provost.

Either way, Provost says that "as soon as a vital sign tells you to suspect sepsis, one must start treatment with fluids and antibiotics quickly if a life is to be saved." Hypotension can look like sepsis, and you will not be harming the patient fol-

COMING IN FUTURE MONTHS

- ■ Dramatically improve triage of mental health
- ■ Be ready for all airway emergencies
- ■ Stop weight-based errors in children
- ■ Prevent hypothermia in your trauma patient

lowing a sepsis route until proven otherwise, adds Provost.

"Start protecting the patient. Hypotension can kill your patient, yet can be repaired with fluid and better regulation of medications," says Provost. "Sepsis, if left untreated, will kill your patient. It must be treated as a heart attack patient is treated."

Don't rely on heart rate

Mary-Lynn Peters, RN, MS, GNC(C), a nurse at the Urgent Geriatric Assessment Clinic at Credit Valley Hospital in Mississauga, Ontario, Canada, says that reduced heart rate and lowered blood pressure, two effects of beta blockers, "are desired when dealing with cardiac disease but can create a misleading clinical picture when dealing with sepsis."

"In sepsis, the body seeks to increase cardiac output by increasing heart rate," Peters says. "Beta blockers prevent the patient from generating a tachycardic response." She recommends the following:

• Review all of the patient's medications, looking for any that might impact the patient's response to sepsis.

• If sepsis is suspected in a patient taking beta blockers, look for all possible signs of sepsis.

Patients might exhibit altered mental status, arterial hypotension, decreased oxygen saturation levels, decreased urine output, ileus, and decreased capillary refill or mottled skin, says Peters.

Laboratory changes that might indicate sepsis include hyperglycemia in the absence of diabetes, elevations of markers of inflammation, thrombocytopenia, elevated creatinine, international normalized ratio elevation, hyperlactatemia, and hyperbilirubinemia, adds Peters.

"These are 'red flags' which will alert the ED nurse to the severity of the patient's status," says Peters.

• Have a heightened vigilance for signs of deterioration.

"Do not rely on a normal heart rate as an indicator of hemodynamic stability or as a determinant of illness severity," says Peters. ■

SOURCES

For more information on elders with sepsis, contact:

• **Mary-Lynn Peters**, RN, MS, GNC(C), Urgent Geriatric Assessment Clinic, Credit Valley Hospital, Mississauga, Ontario, Canada. E-mail: mpeters@cvh.on.ca.

• **John Provost**, RN, Emergency Department, St. Joseph's Hospital and Medical Center, Phoenix, AZ. E-mail: John.Provost@chw.edu.

CLINICAL TIP

Infected elders may have no fever

Older adults have altered temperature regulation ability and might have little or no fever in response to infectious or inflammatory processes, says **Carol Howat**, RN, BSN, CEN, clinical educator for the ED at Northwest Community Hospital in Arlington Heights, IL.

She gives the example of an elderly patient who complains of fatigue, chest pain, and dyspnea, with a temperature of 97.5 F. In this case, "the experienced ED nurse would not base her assumption of an infectious process based solely on the presence or absence of fever," says Howat. ■

CNE INSTRUCTIONS

Nurses participate in this continuing nursing 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. ■

CNE OBJECTIVES/ QUESTIONS

Upon completion of this educational activity, participants should be able to:

- identify clinical, regulatory or social issues related to ED nursing;
- describe the effects of clinical, regulatory, or social issues related to ED nursing on nursing service delivery;
- integrate practical solutions to ED nursing challenges into daily practice.

1. Which is true regarding assessment of an elder ED patient's vital signs?
   A. Normal blood pressure actually might be hypotensive in an elder whose "normal" is much higher due to peripheral vascular disease.
   B. You are likely to see an increased cough reflex.
   C. Avoid giving supplemental oxygen to keep pulse oximetry above 90%.
   D. Patients have decreased peripheral vascular resistance, which raises blood pressure.

2. Which is true regarding elder patients with seizures?
   A. Elders rarely present with altered mental status.
   B. Complex partial seizures are rarely seen in elders.
   C. The postictal state is less prolonged in elders.
   D. Automatisms occur less frequently, and the postictal state and confusion might be prolonged.

3. Which is true regarding drug interactions in elder ED patients?
   A. Age-related changes in the gastrointestinal system increase the efficiency with which drugs are metabolized.
   B. Grapefruit juice may inhibit the metabolism and excretion of calcium channel blockers.
   C. Incremental dosing should not be used when administering procedural sedation medications.
   D. It is a misconception that dietary supplements suppress platelet aggregation.

4. Which is true regarding your assessment of a septic elder patient taking beta blockers?
   A. Fever will not be the only presenting symptom.
   B. The beta blockers typically will cause a tachycardic response.
   C. The patient's pulse rate might be normal.
   D. You can rely on a normal heart rate as an indicator of hemodynamic stability.

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

Updated

Name of Medication	Dose	Time(s)

List all prescription and over-the-counter (non-prescription) medications (Example: Aspirin, St. John's Wort, Vitamins).
Please include prescription meds taken as needed (Example: Nitroglycerin, pain medications, inhalers, eye drops.)

Allergies: (include what happens)

ST. JOSEPH'S
Hospital Health Center

Personal Medication Record

Name

Phone

Emergency Contact:

Name

Phone

Doctor

Phone

Pharmacy

Phone

Health Information:	*Date*
Flu Shot	
Pneumonia Vaccine	
Hepatitis	
Tetanus	
Other	

Keep this list with you

- ✓ **Bring this list to your doctor visits, the hospital and all medical tests.**
- ✓ **Update this form when**

Source: St. Joseph's Hospital Health Center, Syracuse, NY.