

## Assessment and Emergency Care of Geriatric Emergencies

### Scene Size-up

#### Scene Safety

Ensure scene safety and safe access to the patient. You may need assistance gaining access to patients with breathing problems, chest pain, or altered mental status who are not able to get to the door to let you in. If the call takes place in an adult care facility or a nursing home, locate a staff member to help provide you with the patient's medical history. Follow standard precautions, putting on a minimum of gloves and eye protection. Determine the number of patients. Assess the need for additional resources such as law enforcement, ALS, or additional ambulances. Take note of negative or unsafe environmental conditions. Consider which equipment is needed to treat the patient.

#### Mechanism of Injury (MOI)/ Nature of Illness (NOI)

Determine the MOI/NOI. Observe the scene and look for clues that may help you determine what happened to your patient. The NOI may be difficult to determine in older people with an altered mental status or dementia. Multiple and chronic disease processes may also complicate the determination of the NOI. Vague complaints may be indicators of a more serious illness or injury. Determine what is different today that resulted in the call to EMS. Observe the surroundings, noting the presence of pills, medicine bottles, medical equipment, and the overall condition of the living environment. Look for clues that indicate your patient's traumatic incident may have been preceded by a medical incident. Bystander information may help determine if a loss of consciousness occurred before the accident. Consider spinal immobilization in any trauma patient with a significant MOI.

### Primary Assessment

#### Form a General Impression

A rapid visual examination and full-body scan of the patient will help you identify and manage life threats. Determine the priority of care based on the general impression and the MOI. Assess the patient's level of consciousness using the AVPU scale. If the patient is able to communicate, obtain the chief complaint.

#### Airway and Breathing

Ensure the airway is open, clear, and patent. Geriatric patients are predisposed to airway problems. Be alert for airway obstructions, loss of a gag or cough reflex, and aspiration. Only remove dentures if they are creating an airway patency problem. It is more difficult to ventilate a patient with no teeth. Open the airway with a modified jaw-thrust maneuver in an unresponsive patient. Use an airway adjunct as appropriate and ventilate with a bag-mask device if needed. Suction as needed. Evaluate the patient's ventilatory status for rate and depth of breathing, respiratory effort, and tidal volume. Assess the patient's lungs sounds. Any curvature of the patient's spine will require padding to keep the patient supine and the airway open. Minor chest trauma can cause lung injury. Perform a thorough respiratory assessment and physical assessment of the chest and treat accordingly. Administer high-flow oxygen at 15 L/min.

#### Circulation

Lower heart rates and weaker and irregular pulses are common. It may be difficult to feel a radial pulse. Try an alternative pulse point like the carotid artery or listen to the apical pulse right over the heart. The pulse may be irregular because of common heart rhythm problems. Treat circulation issues with oxygen as soon as possible. Manage any external bleeding immediately. Be suspicious of signs and symptoms of internal bleeding. Geriatric patients can quickly go into shock from blood loss. Geriatric patients with hypertension may have a normal blood pressure when they are actually in shock. A head injury with minimal mechanism can cause cerebral bleeding. Blood-thinning medications can make internal bleeding worse or external bleeding more difficult to control.

#### Transport Decision

Any examination findings that cause compromises in airway, breathing, or circulation should result in transportation. This includes patients with a poor general impression, airway or breathing problems, acute altered level of consciousness, shock, any severe pain, or uncontrolled bleeding. A general complaint of weakness and dizziness can be an indication of something more serious. Consider early on in the call if ALS treatment and transport is appropriate and available. If possible, try to take the patient to a facility where the patient has been treated before and his or her medical records reside. Consider trauma center transport for geriatric patients if there is the potential for a serious injury.

## Assessment and Emergency Care of Geriatric Emergencies, continued

**NOTE:** The order of the steps in this section differs depending on whether the patient is conscious or unconscious. The following order is for a conscious patient. For an unconscious patient, perform a primary assessment, perform a full-body scan, obtain vital signs, and obtain the past medical history from a family member, bystander, or emergency medical identification device.

### History Taking

#### Investigate Chief Complaint

Investigate the chief complaint and gather a history once you have identified and treated life threats. It is best to obtain the information directly from the patient, but family or caregivers may need to assist you. Find and account for all medications. Ask OPQRST and SAMPLE questions, focusing on the events surrounding the incident and the MOI or NOI. SAMPLE can also be obtained from family, bystanders, and medical alert tags if the patient is not able to provide the information. Make special note of the patient's medications. Is the patient taking them as prescribed? Does the patient have many medications from different physicians or pharmacies (polypharmacy)? The illness may be the result of medication interactions. If the patient has a traumatic injury, consider the geriatric patient's past medical conditions, even if the patient is not currently acute or symptomatic.

### Secondary Assessment

#### Physical Examinations

Determine if an alteration of consciousness is acute or chronic. Chronic mental status impairment is not a normal process of aging. Determine your patient's baseline mental status using family members or caregivers, if available. Ask questions to assess the nature of the problem and determine whether it may or may not be life threatening. Take a full set of vital signs and ask what is considered "normal" for the patient. Perform a physical examination when appropriate. However, you may find that your elderly patient is not comfortable with being exposed. Protecting his or her modesty will help. The elderly are often cold and you may have to remove several layers of clothing. Consider the need to keep your patient warm during your full-body scan. Determine the conditions that are life threatening, treat them to the best of your ability, and provide transport to the appropriate facility.

#### Vital Signs

Obtain baseline vital signs. Assess pulse, blood pressure, and skin signs. Measurement of capillary refill may be unreliable because of compromised circulation in geriatric patients. Drugs such as beta-blockers inhibit the heart from becoming tachycardic as you would expect in shock; therefore, a heart rate in the normal range may be high for a person who is taking beta-blockers. Try to determine if the patient's blood pressure is normal. A blood pressure that may be normal for an older adult could indicate shock in a younger patient. Auscultate breath sounds to listen for rales or rattles. Careful interpretation of pulse oximetry data is necessary because the pulse oximetry device requires adequate perfusion to provide an accurate reading.

### Reassessment

#### Interventions

Repeat the primary assessment, vital signs, chief complaint, and interventions. Vital signs and reassessment should be repeated every 5 minutes in the serious or unstable patient and every 15 minutes in the stable patient. Compare the findings to those measurements taken earlier. Continuously observe and reassess the patient during transport so worsening conditions can be managed. A geriatric patient who is experiencing shortness of breath will want to sit up or assume the tripod position. Patients with kyphosis will require padding to allow placement of the patient in a supine position. Provide blankets and heat to prevent hypothermia.

## Assessment and Emergency Care of Geriatric Emergencies, continued

### Communication and Documentation

Contact medical control/receiving hospital with a radio report, using appropriate medical and anatomic terminology so appropriate staff and equipment will be ready when you arrive. Include a thorough description of the MOI/NOI and the position in which the patient was found. Include treatment performed and patient response. Be sure to document the patient's chief complaint, description of the incident, physical findings, history, and any changes in patient status and the time. Document the scene observations on your arrival and be prepared to describe your observations to the hospital staff. Follow local treatment protocols. Refusals of medical aid or transport should be documented completely and approved through medical control. Communicating with the geriatric patient during an emergency may be difficult. Do not assume that every elderly patient is hard of hearing; do not shout at the patient.

**NOTE:** Although the following steps are widely accepted, be sure to consult and follow your local protocols. Take appropriate standard precautions when treating all patients.

## Geriatric Emergencies

### General Management of Geriatric Emergencies

Managing life threats to the patient's ABCs is the primary concern. Life-threatening illness or injury detected during the physical examination must be managed immediately. Remain calm and professional. Treat every geriatric patient with respect. Give the patient time to answer your questions.

1. Ensure scene safety.
2. Determine the MOI/NOI.
3. Consider the need for spinal stabilization.
4. Determine the patient's baseline mental status.
5. Open, clear, and maintain the patient's airway.
6. Administer high-concentration oxygen via a nonrebreathing mask or a bag-mask device as appropriate.
7. Control bleeding and treat for shock. Remember, internal injuries may be present without obvious bleeding or external injury.
8. Place the patient in a position of comfort.
9. Transport to the appropriate treatment facility.

### Respiratory Emergencies

Age-related changes in the respiratory system predispose an older adult to respiratory illness. Even a minor lung infection can become a life-threatening event.

#### Pneumonia

Treat the patient with airway, ventilatory, and circulatory support. Provide high-flow oxygen via a nonrebreathing mask for a patient with a manageable airway. Use high-flow oxygen with an oropharyngeal or nasopharyngeal airway for the patient who needs ventilatory support with a bag-mask device. If necessary, provide circulatory support by placing the patient in the shock position or performing cardiopulmonary resuscitation. Follow the respiratory and cardiac arrest management standard of your agency. Evaluate patient treatment through reassessment and prepare for possible deterioration of your patient's condition.

#### Pulmonary Embolism

Focus on airway, ventilatory, and circulatory support. Suction any blood from the airway. Place the patient in a position of comfort and assist breathing using high-flow oxygen and a nonrebreathing mask. If aggressive airway management is necessary, ventilate with a bag-mask device using an oropharyngeal or nasopharyngeal airway. If a patient is in respiratory and/or cardiac arrest, manage according to current Emergency Cardiovascular Care (ECC) guidelines and area protocol. Reassess the patient during transport.

## Assessment and Emergency Care of Geriatric Emergencies, continued

### Geriatric Emergencies

#### Cardiovascular System

The cardiovascular system in a geriatric patient is at risk because of age-related changes such as enlargement of the heart with age, arteriosclerosis, and a more sedentary lifestyle.

##### Heart Attack (Myocardial Infarction)

Treatment should consist of airway, ventilatory, and circulatory support. Provide oxygen with adjuncts appropriate to the patient's condition. Continue to evaluate your patient's response to treatment through reassessment. Cardiac problems can worsen suddenly, so be prepared to act quickly. Many patients will not present with classic chest pain. Atypical presentations are seen mostly in women, the elderly, and patients with diabetes. Associated signs and symptoms such as weakness and dizziness, nausea and vomiting, loss of bladder and bowel control, and shortness of breath should be evaluated by ALS personnel as a possible myocardial infarction.

##### Heart Failure

Signs and symptoms that your patient may have heart failure include dyspnea on exertion, sleeping with multiple pillows or sitting upright, fatigue, and edema in the lower back and extremities. Treatment consists of airway, ventilatory, and circulatory support. Provide oxygen with adjuncts appropriate to the patient's condition and prepare for continued deterioration.

##### Stroke (Cerebrovascular Accident)

The signs of stroke include altered mental status; numbness, weakness, or paralysis on one side of the body; slurred speech; difficulty speaking; vision disturbances; headache; dizziness; or incontinence. The treatment goal is to make sure that surrounding brain tissue sustains as little damage as possible. If available, transport to a stroke center.

#### Nervous System

##### Delirium

Assess the patient for the three specific conditions that can be managed at the prehospital level: hypoxia, hypovolemia, and hypoglycemia. Treatment will depend on the results of your assessment but should include airway, ventilatory, and circulatory support and oxygen with airway adjuncts appropriate to patient's condition if tolerated by the patient. Contact ALS for support.

#### Gastrointestinal System

Geriatric patients are more likely to experience gastrointestinal bleeding. Causes include inflammation, infection, and intestinal obstruction. Patients with gastrointestinal problems will present with hematemesis, melena, dyspepsia, constipation, or diarrhea. Patients are usually agitated and are unable to find a comfortable position. Some patients will report dizziness or syncope. Treatment consists of airway, ventilatory, and circulatory support. Oxygen should be delivered with adjuncts appropriate to the patient's condition. Transport the patient to the hospital.

##### Abdominal Aortic Aneurysm (AAA)

The signs and symptoms include radiating abdominal pain, a pulsating mass near the navel, diminished or absent pulses in the extremity, shock, and syncope. Treat the patient for shock and provide prompt transport to the hospital.

## Assessment and Emergency Care of Geriatric Emergencies, continued

### Geriatric Emergencies

#### Endocrine System

With age, the endocrine system metabolizes hormones differently. Hypothyroidism can present with a slower heart rate, fatigue, drier skin and hair, cold intolerance, and weight gain. An increase in the secretion of the antidiuretic hormone can cause fluid imbalance; increases in the levels of norepinephrine possibly have a harmful effect on the cardiovascular system and cause hyperglycemia.

#### Hyperosmolar Hyperglycemic Nonketotic (HHNC) Coma

Signs and symptoms include hyperglycemia, polydipsia, dizziness, confusion, altered mental status, and possibly seizures. The patient may present with signs and symptoms of hypotension and shock, including tachycardia. Treatment should include airway, ventilatory, and circulatory support. Provide oxygen with adjuncts appropriate to the patient's condition.

#### Trauma

The risk of serious injury or death is more common in elderly patients who sustain trauma. Elderly pedestrians are more likely to have life-threatening complications after being struck by a vehicle because of changes in the body such as fragile bones. Elderly pedestrians commonly suffer injury to the legs and arms, and a secondary collision onto the street often involves the head, which can cause fractures, traumatic brain injury, spinal injury, and paralysis. Falls are a common MOI for the elderly because of poor vision and balance problems, decreased visual acuity, and decreased strength. A fall in a geriatric patient with osteoporosis can result in a pelvic fracture. Determine if the fall was the result of cardiac, neurologic, or metabolic issues. Burns are more common because of altered mental status, inability to focus, and a compromised neurologic status. Remember, trauma is never isolated to a single issue when you are assessing and caring for a geriatric patient. Trauma in the elderly can also be caused by abuse. Be aware of the patient's environment and living conditions a patient lives in and take note of soft-tissue injuries that cannot be explained by the person's lifestyle and physical condition.