

# [Common causes for emergency geriatric treatment](https://assignbuster.com/common-causes-for-emergency-geriatric-treatment/)

Introduction

Chronological age of 65 years or above is accepted as the defining criteria for Geriatric patients in most developed countries 1 . This large heterogeneous group is further classified into three subpopulations commonly referred as ‘ Young-Old’ [65-74 Years], ‘ Old’ [75-84 Years] and ‘ Old-Old’ [85 years and older]. Worldwide, the number of Elderly persons is expected to more than double from 841 million people in 2013 to more than 2 billion in 2050 2 . In United States, patients over the age of 64 years account for 15-18% of ED visits 3 . Of these, about 35% requires admission as inpatient and a significant proportion of this gets admitted to Intensive care units 3 . . The common geriatric syndromes in the Emergency Department include altered mental status, functional decline, fall, trauma, acute abdomen, infections, acute coronary syndromes, cerbrovascular accidents and exacerbations of chronic respiratory disorders.

There are unique characteristics and special needs which have to be kept in mind while addressing elderly patients in the emergency department. The clinical presentation of geriatric patients is usually complex with more of atypical manifestations; confounding effects of co-morbid diseases, super added cognitive dysfunction, polypharmacy and associated adverse drug reactions, psychosocial issues and lack of adequate social support etc 4 . Assessment of these issues usually demands a comprehensive approach with detailed clinical and liberal laboratory and imaging evaluations. This is justified in the context that a brief focused evaluation can overlook many life-threatening conditions in these patient group. More over the attending physician should also try to understand the baseline functional status of the patient prior to the presentation as it has got important prognostic implications. Thus it requires great skill, knowledge and patience from the part of the attending physician and the health care team as such to effectively and safely manage this vulnerable patient population.

Approach to Unstable Elderly patient in Emergency Department

In general, the principles of resuscitation in elderly patients are same as the standard guidelines followed for adult patients. But it is desirable for the emergency physician to speak to the immediate relatives or to the patient himself if possible to see whether there is any advance directive or patient’s wishes for end of life care decisions. If present, it has to be respected before taking treatment decisions.

The special characteristics in elderly while assessing Airway, Breathing and Circulation are summarized in figure 1. Nasal airway or Nasogastric tube has to be inserted gently with care as the nasal mucosa is very friable and has a tendency to bleed in elderly patients. Always examine the oral cavity in unconscious patients for loose fitting dentures or partly chewed food as they can cause potential airway obstruction and if present, has to be removed. Edentulous airway can result in ineffective bag-mask ventilation. Hence well fitting dentures can be kept insitu while bag mask ventilation but always has to be removed before attempts of intubation. Difficulty in extending neck or in opening mouth has to be anticipated while attempting intubation due to degenerative diseases of spine and temperomandibular joints. Arterial Blood gases are an important adjunct to the clinician as the clinical response to hypoxia, hypercapnea and acidosis can be blunted in elderly.

Arterial hypotension (systolic BP <90 mmHg) when present is an ominous sign. But apparently ‘ normal’ pressures does not rule out shock in elderly as these patients are ‘ notorious’ to show features of hypo-perfusion even at normal blood pressures. Reduced chrotropic response to hypovolemia in elderly due to co-morbid conditions or due to drugs like beta blockers can also result in underestimation of the serious nature of the illness 5 . Serial assessment of Blood pressures and Arterial Blood gas examination to see trends in lactate, base excess and acidosis can identify such potential high risk candidates early 6 . Fluid resuscitation should follow in the standard fashion with fluids or blood in an elderly patient who is hemodynamically unstable in the Emergency department. But it should be careful with constant monitoring to avoid pulmonary edema. Early blood transfusion should be considered in elderly unstable trauma patient.

Common Geriatric syndromes in Emergency department

Altered Mental status

At least 25% of elderly patients in the ED have altered mental status 7, 8 . Delirium is an acute confusional state and dementia is a chronic confusional state. Etiology of delirium is often mutltifactorial but often represents an underlying medical emergency. Diagnosis of delirium is clinical and is based on assessment of the level of consciousness and cognition. The confusion assessment method (CAM) is a useful tool for diagnosing delirium at ED 9 . The important management steps in the Emergency department are illustrated in Figure 2. The first priority is to address predisposing and precipitating factors like hypovolemia, hypotension, hypoxia, hypoglycemia, hyponatremia, Acidosis etc. Often inpatient admission is needed for the management of the underlying illness. Drugs like haloperidol or lorazepam may be used in cases of extreme agitation but with caution and at titrating doses.

Decline in Functional status

Functional status reflects how well a person is able to meet his or her own daily needs-like feeding oneself, dressing up, getting out of bed, bathing, toileting etc. The attending physician should not misinterpret a decline in functional status as a part of normal ageing process. Functional status of an elderly patient can be formally assessed with use of standard scales for basic activities of daily living. Activity of Daily living –ADL is one such tool and is shown in figure 4. New onset Functional decline is often precipitated by medical, psychological or social reasons. Patients with unexplained functional decline need admission for evaluation and management. Functional decline is an important predictor of further functional decline, repeat ED visits, hospitalization, need for home care or institutionalization and death 10, 11 . The general approach to a patient with decline in functional status is illustrated in figure 5.

Falls

Falls account for approximately 10% of emergency visits in Elderly 12, 13 . Falls are the most common cause of fatal as well as non fatal injuries in geriatric population. A fall should be treated as a symptom and the physician should evaluate the causes and consequences of fall. The most common reasons for injurious fall-related ED visits among the elderly were fractures (41. 0 percent), followed by superficial/contusion injuries (22. 6 percent) and open wounds (21. 4 percent) 13 . Serious injuries associated with fall include hip fracture, rib fracture, subdural hematoma, other serious soft tissue injury or head trauma. It is important to remember that a fall can signal a sentinel event in an elder person’s life triggering a downwards spiral of complicating events, finally leading to death.

Acute abdomen in elderly

Acute abdominal pain in elderly usually poses a challenge to the clinician as the symptoms are often non-specific, abdominal findings are often subtle and the presence of co-morbid conditions which can complicate the definitive surgical procedures. Common causes of acute abdomen in elderly include acute cholecystitis, acute appendicitis, peptic –ulcer perforation, mesenteric ischemia, acute pancreatitis, ruptured abdominal aortic aneurysm, bowel obstruction and diverticular diseases. Elderly usually presents with atypical symptoms, often significantly late in the course of the illness.

It is essential to consider serious medical conditions like inferior myocardial infarction, pneumonia, pleurisy, diabetic ketoacidosis and pulmonary embolism in all cases of suspected acute abdomen. Abdominal tenderness may not be present or poorly localized. Guarding or rebound tenderness might be difficult to appreciate. Serial abdominal examination is important as new signs tend to appear with time. High risk features include acute onset of pain, severe pain, pain followed by vomiting, worsening or persistent pain, signs of peritonitis, hemoperitoneum and hemodynamic disturbances. Liberal imaging is the usual protocol with Plain x-ray abdomen, abdominal ultrasound and CT abdomen as necessary. Patients with continuing symptoms but with unremarkable laboratory and imaging studies should be observed and serially evaluated as necessary. An approach to elderly with abdominal pain is illustrated in figure 6.

Infections in elderly

Elderly are significantly more prone to infections and its life threatening complications. Presentation of infection can be atypical with lack of fever or localizing features. Sepsis can present with subtle clinical features like lethargy, decline in functional status or confusion. Usual site of infections include lung, urinary tract, skin and abdomen. High index of suspicion is necessary to early identify the patients with sepsis. Management of Severe Sepsis and Septic shock in elderly should follow the standard guidelines used for adults like international surviving sepsis guidelines 14 . Early initiation of antibiotics and other sepsis resuscitation bundles is found to improve mortality and functional recovery 15, 16, 17 . The salient points in the clinical approach to an elderly with suspected sepsis are summarized in figure 7.

Medication related problems

Adverse events related to drugs are common in elderly population and is a common cause for ED visits. Elderly are more susceptible to serious and fatal adverse drug effects due to polypharmacy, lack of monitoring , non-adherence, use of multiple medications, use of over the counter medications, wrong dosage , altered drug metabolism and propensity for drug interactions. The risk factors for serious adverse drug reaction in elderly include ‘ old-old’ patient, lean body mass, more than 6 chronic medical illnesses, 9 or more drugs, more than 12 doses per day and a previous history of adverse drug reaction 18 . Most commonly encountered problematic drugs include diuretics, NSAIDs, Warfarin, Digoxin, antidiabetic agents, antiepileptic agents, chemotherapeutic agents, antibiotics and psychotropic drugs 19 . Detailed drug history, reviewing prescriptions and direct verification of current medications may prove to be very helpful strategies while evaluating geriatric patients in the ED.

Elder Abuse and Neglect

Elder abuse is defined a single or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person 20. It can result either from an act of commission or of omission and may present as physical abuse, psychological abuse, sexual abuse, care giver neglect, self neglect and financial exploitation. It should be suspected in patients who present with unexplained or multiple injuries in various stages of evolution.

Key points:

* The characteristics and needs of elderly in the Emergency department are quite different than the younger patient.
* Clinical presentation of life threatening diseases can be atypical, subtle or misleading with absence of classic symptoms and signs.
* Presence of multiple co- morbid conditions and cognitive impairment usually complicates the picture.
* A comprehensive work up-including detailed history, physical examination and liberal investigations and imaging is recommended than a brief goal directed or symptom based work up.
* Altered mental status, falls, functional decline, acute coronary syndromes, stroke, infections with or without sepsis, acute abdomen and trauma are the common geriatric syndromes in the emergency department.
* Social and non medical issues are important and need multidisciplinary input to ensure safe and effective disposition of these population.