Clinical Practice Procedures:
Other/The elderly patient

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<tr>
<td>Purpose</td>
<td>To ensure consistent approach to the management of an elderly patient.</td>
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<td>Scope</td>
<td>Applies to all QAS clinical staff.</td>
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Most developed countries have defined elderly to be people over the age of 65. This cohort represents the fastest growing segment of the Australian population and consequently elderly patients are an increasing proportion of work for ambulance services. Elderly patients now live longer with chronic and often incurable conditions and their health management will commonly require a degree of both medical and social care.

The assessment of an elderly patient is often more complex than one conducted in younger patients as it focuses on individuals with complex or chronic conditions, and emphasises the patient’s functional status and quality of life. With a greater significance placed on autonomy and independence, effective assessment should be broad and consider a varied account of the patient’s requirements rather than revolving around crisis management of recurrent or acute symptoms.

Caring for the elderly patient can present a challenge for the paramedic as assessment needs to consider the patient’s physical and mental state, medications, and social circumstances which may complicate the management of an otherwise simple ailment. Paramedics need to maintain a high index of suspicion that seemingly uncomplicated signs and symptoms can be the manifestation of serious underlying pathology.

Clinical features

The ageing processes are often associated with an increase in the prevalence of chronic disease, the deterioration of organ function and declining physiologic reserves. An understanding of these physiologic changes is important as they are essential for conducting a thorough assessment and management of the geriatric patient and the related comorbidities and disabilities. The physiologic changes associated with the ageing process can be extensive but are most notable in the cardiovascular, respiratory, renal, and neurovascular systems.

Respiratory System
- respiratory compliance
- elastic recoil with alveoli collapse
- response to hypoxia and hypercapnia
- prevalence of disease and infection

Neurovascular System
- degeneration of neurons
- in brain size and weight
- sensory perception declines steadily
- in hypothalamic function, affects ability to generate and conserve heat
- cognitive impairment
- changes in pain perception

Renal System
- loss of nephrons, size and weight of kidneys
- ability to filter blood
- ability to clear pharmacological agents
- marked decline in the subjective feeling of thirst
- prevalence of infection, particularly UTIs

Cardiovascular System
- most common comorbid condition
deterioration in conduction system resulting in prevalence of AF, BBB, sick sinus syndrome
- widespread arteriosclerosis results in hypertension
- thickening of the heart wall with associated cardiac hypertrophy
- cardiovascular reserve

Miscellaneous
- general loss of muscle tone and strength
- prevalence of undernutrition and malnutrition
- prevalence of osteoporosis
deterioration of skin immune system results in increased susceptibility to infection
Risk assessment

**General appearance**
A strategic assessment of the elderly patient’s general state of health can be obtained by observation. Viewing the patient’s interaction and movement can provide the paramedic with valuable information about the patient’s level of consciousness, mobility and gait, muscle strength, social interactive ability, hygiene, colour, and obvious discomfort. It is important to note that in the elderly patient, the first sign of a medical problem can commonly manifest as a change in functional status.\(^3\)

**Medications**
Elderly patients can suffer from chronic disease states which require multiple medications for their management. This polypharmacy combined with risk factors of physiologic aging processes, increased number of physicians involving the patient, and concomitant use of drugs that cause additive hypotension, sedation or anticholinergic effects, can render geriatric patients particularly susceptible to adverse drug effects and drug-to-drug interactions.\(^6\)

**Mental status**
Assessment of mental status is a critical part of the elderly patient’s assessment. The elderly patient’s mental status may be influenced by cognitive impairment such as dementia or Alzheimer’s, current illness or injury, current medications, or relative familiarity with their surroundings. Impaired cognition, even if normal for the patient, may have a significant bearing on the type and direction of medical care.\(^7\)

Risk assessment (cont.)
An acute change in the mental status of elderly patients may be the result of Delirium. Delirium is characterised by an alteration of consciousness, cognition, or perception that develops over a short period of time (hours to days). Patients presenting with delirium may be agitated and restless, quiet and withdrawn, or move between these two states. Delirium is often associated with poor outcomes in patients with increased risk of falls, mortality, and a higher dependency of care. Key risk factors for delirium include: Age > 65 years, known cognitive impairment/dementia, severe medical illness and current hip fracture. Any patient presenting with one or more risk factors should be identified upon presentation to hospital for further screening and assessment.\(^8\)

It is important to note that the absence of adaptive devices such as hearing aids or eye glasses can functionally disable patients and may be a contributor to altered mental status by limiting their ability to interact with their environment.

**Trauma**
Traumatic injuries in the elderly population are associated with significant morbidity and are one of the leading causes of death. The physiologic changes combined with disease processes significantly diminish the ability of the elderly body to respond to the physiologic stress of trauma, with shock progressing much more rapidly in this population than any other age group. Falls are responsible for over half of all accidental deaths in the elderly population and particular attention should focus on assessment of the head, chest, abdominal, and fractures of the hip, spine, femur, hand, forearm and shoulder.
**Additional information**

**Grasp reflex**
Transferring of the elderly patient e.g. from chair to stretcher, can present a risk to the attending paramedic. With normal neurodegeneration and/or cognitive impairment the brain can lose its ability to override reactions such as the grasp reflex. When an elderly patient won’t release an object, it is not adverse behaviour but rather a primitive reflex to a fear of falling and injury. Paramedics should be aware of this risk and where possible avoid situations, such as hand holding, when moving or transferring the geriatric patient, which may trigger this reflex. Paramedics should consider alternate aids such as walk belts to assist in this process. Once a patient is exhibiting signs of grasp reflex, reassuring them and prompting the patient to open their hand is often effective. Prying the hands of the patient open will often only result in an increased reflex response and an increased risk of potential injury to the patient and the paramedic.

**Skin tear**
The degeneration of the skin associated with the elderly patient can predispose these patients to significant and painful skin tears. Caution should be applied when applying or removing any adhesive tape, dressing or ECG electrodes to these patients. To facilitate the removal of such items, apply careful counter-pressure to the skin near the adhesive fastener as it is slowly rolled off.