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Contact Hours: **2**

Older Adult and Geriatric Care for Texas Nurses

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LEARNING OUTCOME AND OBJECTIVES: Upon completion of this continuing education course, you will have increased your knowledge of the unique issues related to caring for older adult patients. Specific learning objectives to address potential knowledge gaps include:

- Discuss the major age-related physiologic changes impacting older adults and related management recommendations.
- Describe cognitive changes impacting the health of older individuals and related management recommendations.
- Describe mental health issues of older individuals.
- Review the assessment and management of elder abuse victims.
- Clarify the principles that guide end-of-life care.

INTRODUCTION

By 2030, 1 in 5 Americans will be 65 years or older, and by 2034, older adults will outnumber children for the first time in U.S. history. Texas has a population of over 30 million people and over 14% of them (4,249,528) are age 65 and older. It is projected that from 2023 to 2050, the number of people 65 and older living in Texas will increase by more than 88% (U.S. Census Bureau, 2020; Houston State of Health, 2023; Texas 2036, 2023).

Because many members of the older generation require chronic or acute disease care at a higher rate than other major demographics, this is resulting in an increasing demand for qualified, knowledgeable healthcare professionals who possess specialized knowledge and skills in the management of older adults' unique physical, psychological, and social needs. Continuing

education of the healthcare community is an essential step toward ensuring the best quality of care is available for this vulnerable population (Avant Healthcare Professionals, 2023).

WHAT OLDER ADULTS WANT FROM HEALTHCARE PROVIDERS

Older adults express the following concerns and wants from their healthcare provider(s):

- To be addressed face-to-face
- To be spoken to as an adult and to be addressed as they prefer to be addressed
- To be comfortable and to be assisted with mobility as necessary
- To be spoken to slowly to allow time to process
- To not be interrupted
- To avoid healthcare provider impatience and bias
- To have vision and hearing deficits considered during interactions
- To be spoken to using simple, common language and without medical jargon
- To collaborate in goal setting
- To be asked if clarification is needed
- To be evaluated regarding their understanding of health issues and what steps are to be taken

To be given clear and specific written notes or printed handouts about their medical conditions

- To have cultural differences considered
- To be provided with professional translation services and written material in different languages when needed
  (NIA, 2023)

PHYSICAL CHANGES OF AGING

Physiologic aging may be the most significant factor challenging quality of life. It is not known exactly how and why people change as they get older, and there are many theories about it. Some changes always occur with aging, but they occur at different rates and to different extents. There is no way to predict exactly how any given individual will age.

Musculoskeletal Changes

Bones lose calcium and other minerals, and bone mass or density decline occurs, especially in postmenopausal women. Vertebral disks lose fluid and become thinner. Vertebrae lose some

mineral content, resulting in thinning, and bone spurs may form. The spinal column curves and compresses, posture may become stooped, and postural hyperkyphosis may occur.

Joints become stiffer and less flexible, and fluid may decrease. **Cartilage** may start to rub together and wear away. Calcifications may occur, commonly around the shoulder. Hip and knee joints also begin to lose cartilage, as well the finger joints, which may also develop bony osteophytes.

Muscle tissue may be replaced with tough, fibrous tissue, most noticeable in the hands. Muscles lose tone and are less able to contract as a result of muscle tissue and nervous system changes. Muscles may become rigid and lose tone, even with regular exercise. Lean body mass decreases partly due to atrophy of muscle tissue. The loss of muscle is associated with decreased strength, slower movement, and movement limitations. Recovery of older muscle after injury is slowed and frequently incomplete, and muscle contractions may occur in those who are unable to move on their own or who do not stretch their muscles with exercise.

Common problems that occur with musculoskeletal aging include:

- Osteoporosis, especially for older women
- Compression fractures of the vertebrae, which can result in pain and reduced mobility
- Muscle weakness, contributing to fatigue, weakness, and reduced activity tolerance
- Joint problems ranging from mild stiffness to debilitating osteoarthritis
- Increased risk of injury due to gait changes, instability, and loss of balance that can lead to falls
- Reduced reflexes, most often due to changes in muscles and tendons, rather than changes in nerves; decreased knee or ankle jerk reflexes; and positive Babinski reflex
- Involuntary movements such as muscle tremors (fasciculations) and fine movements
- Weakness or abnormal sensations (paresthesias)
- Inability to move, or lack of stretching of muscle, resulting in muscle contractures (Brodkey, 2022)

MANAGEMENT AND PREVENTION

Management strategies for **musculoskeletal disorders** include:

- Physical exercise, alone or in combination with nutritional intervention, including high-intensity resistance training, a balanced program of endurance, and strength exercises
- Nutritional supplements, including vitamin D
- Programs to prevent falls and optimize bone health

Recommendations for **arthritis** include:

- Weight loss
- Physical therapy
- Supervised progressive exercise
- Provision of custom or prefabricated orthotic devices

Falls are the most common cause of fractures in older people. Most older adults can benefit from targeted programs to prevent falls and optimize bone health (Minetto et al., 2020).

Integumentary Changes

Skin changes are the most visible signs of aging. Growths such as skin tags, warts, rough patches (keratoses), and other blemishes are more common. Skin cancers are common and usually located in sun-exposed areas. More than 90% of all older people have some type of skin disorder, such as xerosis, pruritus, eczematous dermatitis, and purpura. Aging skin repairs itself more slowly. Wound healing may be up to four times slower, contributing to pressure ulcers and infections. The skin's ability to produce vitamin D declines, affecting bone health (Brodkey, 2022; Rosen, 2023).

Sebaceous glands produce less oil, resulting in dryness and itchiness. **Sweat glands** produce less sweat, making it hard to keep cool.

Changes in **nails** can impair ability to perform daily activities. Pits, ridges, lines, and changes in shape may be related to iron deficiency, kidney disease, and nutritional deficiencies (Brodkey, 2022).

MANAGEMENT AND PREVENTION

Maintaining **skin integrity** is essential, requiring a holistic and interdisciplinary approach, and includes:

- Performing regular skin assessments
- Maintaining mobility
- Relieving pressure
- Using safe manual handling techniques
- Providing skin care, paying attention to high-risk areas
- Encouraging good nutrition and hydration
- Inspecting feet daily
- Consulting a podiatrist if necessary

Because many older adults had chicken pox as children, they are risk for **shingles** and should obtain a vaccine if there are no contraindications (Fraser, 2020; Consultant 360, 2023; EHS, 2023; Brodkey, 2022).

Cardiovascular Changes

Some cardiovascular changes in the older adult are normal and inevitable, while others are influenced by modifiable factors such as lifestyle and health conditions.

As people age, **heart muscle** thickens and becomes stiffer, reducing the amount of blood the heart can pump, leading to decline in exercise capacity and a higher risk of heart failure.

The **electrical system** of the heart becomes less sensitive, increasing risk for abnormal rhythms such as atrial fibrillation, likewise increasing risk for stroke.

Large **arteries** stiffen and lose elasticity, causing hypertension, which can damage blood vessels and organs and increase the risk of heart attack and stroke. Walls of the smaller arteries and arterioles also become harder and thicker (arteriosclerosis). Deposits of yellowish plaque containing lipids and cholesterol (atherosclerosis) build up on the artery walls, narrowing the lumen.

Capillaries thicken and become less permeable, slowing down exchange of oxygen and nutrients to the tissues, which can affect wound healing and the function of organs such as the skin and muscle.

Baroreceptors become less responsive, causing orthostatic hypotension, increasing risk for falls.

Cardiac aging is associated with left ventricle hypertrophy, fibrosis, and diastolic dysfunction, resulting in reduced cardiac output and risk of heart failure.

Since arteries and arterioles become less elastic, blood pressure cannot adjust quickly, putting people at risk for dizziness or fainting (NIH, 2022a).

MANAGEMENT AND PREVENTION

Management and prevention of cardiovascular issues in the older adult include patient education regarding modifying controllable risk factors such as diabetes, hypertension, overweight, diet, exercise, smoking, and alcohol intake.

Hypertension management requires lifestyle changes and pharmaceutical therapy, education on stress management, and encouragement of some form of relaxation technique (Egan, 2023). Atrial fibrillation is often managed with anticoagulation therapy such as warfarin (Coumadin) and antiplatelet drugs such as aspirin or clopidogrel (AHA, 2023).

Peripheral vascular disease management includes avoiding prolonged standing or sitting, and exercising on a regular basis. Pharmaceutical therapy includes antiplatelet or anticlotting agents, statins, and medications that increase blood supply. Nonpharmaceutical therapy includes extremity elevation, compression stockings, exercise, and wound care for ulcerations caused by chronic venous insufficiency. Treatment for claudication is a supervised exercise program and may include the antiplatelet agent cilostazol (Berger & Davies, 2023).

Thermoregulatory Changes

Older adults have reduced autonomic and behavioral thermoregulatory responses, attenuated sweat gland output, increased threshold for onset of sweating, decreased skin blood flow, reduced cardiac output, and impaired thermal perception, placing them at high risk for **hypothermia** and **hyperthermia** (Mauk, 2023).

MANAGEMENT AND PREVENTION

Management and prevention include avoiding environmental extremes of heat or cold. Patient education includes:

- Wearing proper clothing for environmental conditions
- Maintaining a proper temperature-controlled environment in the home
- Maintaining appropriate hydration
- Using a fan or water spray when exercising or in a hot environment
- Avoiding alcohol intake in cold environments
  (Velez, 2021)

Urinary System Changes

Kidney efficiency is impaired due to halving of the number of nephrons, halving of renal blood flow, and halving of glomerular filtration rate and maximum excretory capacity by age 75, affecting ability to excrete ammonium, sodium, potassium, or medications.

However, kidneys have a large reserve capacity, and functional ability remains relatively stable unless stressed. The kidneys can maintain normal homeostasis mechanisms and waste disposal within limits, but they are less efficient, need more time, and have minimal reserves. As a result, minimal dehydration, infection, or impaired cardiac output may lead to chronic kidney failure (Physiopedia, 2023; Mauk, 2023).

With age, the **bladder** decreases in size, and bladder walls develop fibrous matter, affecting overall stretchability and contractibility. Filling capacity declines, along with the ability to withhold voiding. The ability of the detrusor muscle to contract declines, causing involuntary bladder muscle contractions resulting in a sudden urge to void, frequent urination, and frequent voiding at night.

In about 50% of men with benign prostatic hyperplasia (BPH), enlargement of the prostate causes obstruction of the bladder outlet, resulting in urinary dysfunction. In response, the bladder walls become thicker and stronger to compensate. If untreated, blockage may become nearly complete or complete, causing urinary retention and possibly kidney damage.

In women, due to a declining level of estrogen during menopause, the **urethra** shortens and the lining becomes thinner causing a decrease in the ability of the urinary sphincter to close tightly, increasing risk for urinary incontinence (Mauk, 2023; Preminger, 2022).

Urinary incontinence (UI) is a significant health problem for older adults, both physically and psychologically. Incontinence can occur due to weak bladder or pelvic floor muscles, overactive bladder muscles, damage to nerves that control the bladder related to diabetes or Parkinson's disease, pelvic organ prolapse, medications, delirium, sensory impairment, and environmental barriers.

Most incontinence in men is related to prostatitis, injury or damage to nerves or muscles from surgery, and benign prostatic hyperplasia (NIA, 2022).

TYPES OF URINARY INCONTINENCE

- Stress incontinence: urine leaks as pressure is put on the bladder, e.g., during exercise, coughing, sneezing, laughing, lifting heavy objects
- Urge incontinence: sudden need to urinate with inability to hold urine long enough to get to the toilet
- Overflow incontinence: small amounts of urine leak from a bladder that is always full
- Functional incontinence: problem getting to the toilet because of mobility issues; may occur despite normal bladder control
- Transient incontinence: incontinence due to reversible causes
(Trans & Puckett, 2023)

MANAGEMENT AND PREVENTION

Management and prevention of chronic **kidney disease** involves lowering risk by making healthy lifestyle changes, maintaining normal blood pressure, and controlling diabetes. There is no intervention for chronic kidney disease. Once damaged, kidneys cannot be repaired. Management in the event of kidney failure requires dialysis (CDC, 2023).

Bladder and urethra dysfunction management includes placing patients presenting with symptoms of urinary tract infection on an appropriate antibiotic.

Management of **urinary retention** caused by benign prostatic hypertrophy (BPH) includes:

- Active surveillance by a urologist
- Medications: alpha blocker tamsulosin (Flomax) and 5-alpha reductase inhibitor finasteride (Proscar)
- Less invasive procedures, such as a prostatic urethral lift (PUL) that lifts and compresses the prostate to prevent urethral blockage; water vapor thermal therapy and transurethral microwave therapy (TUMT) that destroys prostate cells; and catheterization, intermittent or indwelling
- Invasive surgical procedures, including transurethral resection of the prostate (TURP) (AUA, 2020)

Management of **urinary incontinence** depends on the type of incontinence, severity, and underlying cause, and a combination of treatments may be used (see table).

INTERVENTIONS FOR URINARY INCONTINENCE	
Type	**Interventions**
Lifestyle changes	• Weight loss • Increased physical activity • Smoking cessation • Alcohol avoidance • Decreased caffeine intake • Prevention of constipation • Avoiding heavy lifting • Reducing intake of acidic foods • Reducing liquid consumption
Behavioral techniques	• Scheduled or delayed timed urination • Double voiding
Physical therapy / occupational therapy	• Pelvic floor exercises (e.g., Kegel's) • Muscle-strengthening exercises • Electrical stimulation • Biofeedback
Medications	• Anticholinergics • Alpha blockers for men (Flomax, Rapaflo) • Antimuscarinic (mirabegron [Myrbetriq]) • Topical estrogen for women
Medical devices	• Vaginal rings and urethral inserts • Pessary (prosthetic device inserted into the vagina for structural purposes)

Surgery	• Single sling procedures • Bladder neck suspension • Prolapse surgery • Artificial urinary sphincter implants
Supportive interventions and devices	• Absorbent pads • Protective undergarments, modified clothing • Intermittent catheterization • Indwelling catheter • Condom catheter for men • Urethral plugs and penile clamps
(Mayo Clinic, 2023a)	

(See also the Wild Iris Medical Education course "Incontinence.")

Respiratory Changes

Aging of the respiratory system reduces the capacity of all pulmonary functions, which may lead to decompensation when the system is stressed.

The effects of aging in other areas of the body affect the **lungs**. Thinning of bone and changes in shape alter the ribcage, decreasing expansion and contraction. The **diaphragm** weakens, impairing inhalation and exhalation, resulting in a lower oxygen level in the body and increased carbon dioxide level.

Muscles and other tissues adjacent to the **airways** may lose the ability to keep airways completely open, and progressive calcification of the walls of the trachea and bronchi causes increasing rigidity, resulting in a decrease in maximum breathing capacity. Walls of the **alveoli** deteriorate, lose shape, and become baggy, allowing air to become trapped in the lungs, making it hard to breathe and impairing gas exchange.

The nervous system, which monitors respiratory volume and blood gas levels and regulates respiratory rate, may lose some of its function. Breathing may become more difficult and gas exchange impaired. **Nerves** in the airways that trigger the protective cough reflex become less sensitive. Dysphagia or impaired esophageal motility may exacerbate the tendency to aspirate (Brodkey, 2022).

MANAGEMENT AND PREVENTION

Because older people are at highest risk of developing pneumonia, both influenza and pneumococcal pneumonia vaccines are highly recommended.

Risk for **COPD and emphysema** can be reduced through lifestyle management including:

- Encouraging smoking cessation
- Avoiding polluted air
- Weight reduction to improve diaphragm function
  (NIH, 2022b)

Management for COPD includes:

- Inhaled medication (bronchodilators, steroids)
- Smoking cessation
- Oxygen therapy
- Pulmonary rehabilitation
  (Health in Aging, 2023)

Emphysema, a form of COPD, can be treated with the Zephyr valve, a one-way valve placed in three to five airways that reduces hyperinflation of a portion of the lung (Dransfield et al., 2020).

Endocrine Changes

Endocrine function generally declines with age as hormone receptors become less sensitive. Some hormones that decrease with aging include:

- Growth hormone and serum IGF-1
- Gonadotropin-releasing hormone
- Luteinizing hormone (LH)
- Follicle-stimulating hormone (FS)
- Melatonin
- Insulin
- Vasopressin
  (Utiger, 2023)

Thyroid and **adrenal function** do not significantly change, but normal aging results in subtle changes in adrenal secretion of both ACTH and cortisol (NIH, 2022c).

With the decline in sex hormones, **menopause** in women may cause vaginal dryness, irritation/itching, inadequate lubrication, and dyspareunia (painful intercourse). **Andropause** in men may include erectile dysfunction (ED), and some may develop testosterone deficiency that can severely reduce libido.

MANAGEMENT AND PREVENTION

Management for the symptoms of **menopause** include vaginal moisturizers and lubricants, vaginal estrogens, and oral or transdermal hormone therapy. Gabapentin may be prescribed for those who cannot use estrogen.

Management and prevention for **erectile dysfunction** includes:

- Healthy lifestyle choice
- Managing existing chronic health conditions
- Screening for depression or other psychological cause
- Moderate to vigorous aerobic exercise
- Oral, rectal, or injected drugs (Viagra, alprostadil self-injection or suppository)
- Testosterone replacement
- Penis pumps
- Penile implants

Testosterone treatment may be considered in men who want to improve their sexual function. Risks include stimulating the growth of metastatic prostate cancer, increased risk of heart attack and stroke, and blood clot formation in the veins (Mayo Clinic, 2023b).

Management of **hyperparathyroidism** includes parathyroidectomy (Rizk et al., 2023).

Management of **excess adrenal secretion** includes exercise, adequate sleep, a healthy diet, and mind-body practices such as yoga (Cleveland Clinic, 2020a).

Patients with **hyperthyroidism** may be started on antithyroid medications such as methimazole (Tapazole) or beta blockers. For those with **hypothyroidism**, management includes thyroid replacement medication such as levothyroxine (Cleveland Clinic, 2020a).

For patients with **diabetes**, management includes a medical nutrition evaluation and exercise counseling. Metformin and insulin are considered first-line therapy (Munshi, 2023).

Gastrointestinal Changes

Aging has less effect on digestive system function than on other organ systems. Older adults are more likely to develop diverticulosis and to have digestive tract disorders, such as constipation, as a side effect of taking certain medications.

Taste and smell gradually begin to diminish, less saliva is produced, and gums recede slightly. Tooth enamel tends to wear away, increasing susceptibility to decay.

Contractions of the **esophagus** and tensions in the upper esophageal sphincter decrease, but the movement of food is not impaired. Some older adults, however, can be affected by diseases or disorders that interfere with esophageal contractions.

The **stomach** lining's capacity to resist damage decreases, which in turn may increase risk of peptic ulcer disease, especially in those who use aspirin or NSAIDs. Conditions such as atrophic gastritis become more common, resulting in problems such as vitamin B_{12} deficiency or small intestinal bacterial overgrowth.

Minor changes occur in the structure of the **small intestine**, but excessive growth of certain bacteria can lead to pain, bloating, and weight loss, as well as decreased absorption of nutrients such as iron and calcium.

The **pancreas** decreases in weight, and some tissue is replaced by fibrosis. These changes, however, do not decrease the pancreas's ability to produce digestive enzymes and sodium bicarbonate.

As the **liver and gallbladder** age, structural and microscopic changes occur. The ability of the liver to metabolize many substances decreases, and some drugs are not inactivated as quickly.

The **large intestine** does not undergo much change with aging, but the **rectum** does enlarge somewhat, and constipation becomes more common. Bowel movements may become infrequent or painful, and stools may be hard and dry. Constipation can be triggered as a side effect of medication or a symptom of another disorder. Other changes include a slight slowing in the movement of contents, a modest decrease in rectal contractions, and pelvic floor weakness in women, which can contribute to fecal incontinence (Bartel, 2022).

MANAGEMENT AND PREVENTION

Basic management and prevention involve regular physical exercise, a healthy diet that includes foods high in fiber, reduced salt consumption, adequate fluid intake, and avoiding caffeinated and alcoholic beverages.

Interventions for **constipation** that increase the sensation of the need to defecate include a high-fiber diet, maintaining adequate fluid intake, physical activity, regular toilet routine, osmotic laxatives, stool softeners, lubricants or stimulant laxatives, suppositories, or small enemas (Cleveland Clinic, 2020c; GI Society, 2022).

Sensory Changes

Sensory changes in later life affect how people perceive and experience the world and can have an enormous impact on independence, safety, and quality of life. All five senses—vision, hearing, taste, smell, and touch—diminish in acuity with age. Aging raises the threshold of the amount of stimulation necessary to become aware of a sensation (NIH, 2022d).

Vision is affected by changes in all of the eye structures. The cornea become less sensitive, making eye injuries less noticeable. Pupils react more slowly to darkness and bright light. The lens becomes yellowed, less elastic, and slightly cloudy. Eye muscles become less able to fully rotate the eye.

Eyes become less able to tolerate glare, and problems with glare, brightness, and darkness may lead to impaired night vision and reduced color discrimination. Visual acuity gradually declines, causing difficulty focusing on close-up objects (presbyopia). Common eye disorders include cataracts, glaucoma, age-related macular degeneration, and retinopathies (NIH, 2022d).

Age-related **hearing loss** (presbycusis) affects both ears, particularly the ability to hear high-frequency sounds. There may be problems in differentiating between certain sounds or with hearing a conversation in the presence of background noise (NIH, 2022d).

MANAGEMENT AND PREVENTION

Vision loss management and prevention include reminding patients to follow the recommendation of the American Academy of Ophthalmology for a comprehensive vision exam every year or every other year, and to ensure the patient has the proper eyeglass or contact lens prescription and to recommend a diet rich in vitamins C and E, zinc, lutein, zeaxanthin, and omega-3 fatty acids (Boyd, 2023; Gregori, 2023).

Hearing loss management includes examination of the external auditory canal and removal of an accumulation of cerumen. If patient uses hearing aids, they should be removed and examined to determine whether the ear mold or plastic tubing is plugged with wax or the battery is dead (NIH, 2023). Management of conductive hearing loss may include removing wax, draining fluid, or surgery involving the eardrum or bones in the ear. Sensorineural hearing loss cannot be treated, but hearing aids or cochlear implants may be used.

Prevention measures include management of hypertension and diabetes; smoking cessation; limiting alcohol use; avoiding ototoxic drugs whenever possible; eating foods high in vitamins A, C, E, and especially B_{12}; and wearing hearing protection in noisy environments (NIH, 2022d; Victory, 2022).

Nutritional Changes

Older adults generally require fewer calories because decreased muscle mass contributes to a decline in metabolism and mobility. Gastrointestinal function becomes less efficient, making it harder to absorb nutrients, and this can lead to deficiencies in certain vitamins and minerals. The body tends to store more fat with aging, which contributes to the risk of overweight and obesity and further risk for diabetes and cardiovascular disease.

Malnutrition in the older adult can lead to problems such as:

- An increased risk of death and/or hospitalization

- A weakened immune system, increasing risk of infections
- Decreased bone mass and muscle weakness, increasing risk of falls and fractures
- Poor wound healing
(Swiner, 2023)

During menopause women require more calcium and vitamin D to maintain strong bones. In men who are experiencing reduced testosterone, additional protein is required to maintain muscle mass (Cochran, 2023).

MANAGEMENT AND PREVENTION

Interventions for patients who are **malnourished** are directed at the underlying cause (e.g., treatment for depression) as well as dietary modification. Nutritional restrictions are lifted for patients with diabetes who may do well with a regular diet and adequate monitoring. High-calorie foods are recommended. Oral nutritional supplementation for patients who do not regain weight are also recommended, with adjustments in meal preparation and diet.

Advice regarding weight loss of the **overweight** older person is tailored to the individual, assessing the impact of excess weight on quality of life, and includes the need for regular exercise. It is not recommended that people over the age of 80 who are slightly obese be placed on calorie-restricted diets. The best option is to eat at least three meals a day that provide 30 grams of protein each and to engage in two or three weekly sessions of resistance training that taxes all the large muscle groups in order to preserve muscle mass (Ritchie & Yukawa, 2023).

COGNITIVE CHANGES OF AGING

Normal age-associated changes include difficulties with memory, but:

- They do not noticeably disrupt daily life.
- They do not affect ability to complete tasks as usual.
- There is no difficulty learning and remembering.
- There is no underlying medical condition causing the difficulties.
(UCSF, 2023)

In **abnormal** aging, declines in cognition are more severe and may include other thinking abilities, such as confusion; rapid forgetting; or difficulties navigating, solving common problems, expressing oneself in conversation, or behaving outside of social rules. Abnormal changes result in mild cognitive impairment (MCI) and dementia. MCI does not affect the person's ability to carry out everyday tasks, while dementia indicates cognitive difficulties are impacting those abilities.

Delirium

Delirium is a reversible acute state of confusion that develops quickly, within hours or days, and is typically the result of a medical problem. Delirium is a medical emergency associated with increased morbidity and mortality rates.

Symptoms of delirium are sometimes confused with symptoms of dementia. Differences are described in the table below.

COMPARING DELIRIUM AND DEMENTIA		
	Delirium	**Dementia**
Onset	Occurs within a short time	Usually begins with minor symptoms that worsen over time
Attention	Impaired ability to maintain focus	In early stages, generally alert; sluggishness or agitation not typical
Change in symptoms	May come and go rapidly several times during the day	Better and worse times of day, but memory and thinking skills typically constant
(Mayo Clinic, 2022; Iglseder et al., 2022)		

MANAGEMENT OF DELIRIUM

Management of a patient with delirium involves treating the underlying organic cause, and the goal of management is to keep the patient safe and free from falls and injury while attempting to identify the cause. Supportive care is aimed at preventing complications.

Psychotropic medications may be necessary if symptoms make it difficult to perform a medical exam or provide treatment, put the person in danger or threaten the safety of others, or do not lessen with other forms of management (Mayo Clinic, 2022).

Mild Cognitive Impairment

Mild cognitive impairment is characterized by problems with memory, language, thinking, or judgment that are not severe enough to interfere with daily living and one's usual activities (Mayo Clinic, 2023c). MCI may increase the chances of later development of dementia, but some people never get worse and a few eventually improve.

Experts classify MCI based on the thinking skills affected:

- **Amnestic MCI** primarily affects memory. A person may start to forget important information that they would previously have recalled easily.
- **Nonamnestic MCI** affects thinking skills other than memory, including ability to make sound decisions, judge the time or sequence of steps needed to complete a complex task, or visual perception.
(AS, 2023)

PREVALENCE OF MCI

MCI is common in older adult populations.

- Approximately 12%–18% of people ages 60 or older are living with MCI.
- An estimated 10%–15% of people living with MCI develop dementia each year.
- One third of people living with MCI due to Alzheimer's disease develop dementia within five years.

(AA, 2023a)

MANAGEMENT AND PREVENTION OF MCI

Treatment may include cholinesterase inhibitors for those whose main symptom is memory loss. They are not, however, recommended for routine treatment of MCI, haven't been found to affect progression to dementia, and can cause side effects.

Lifestyle interventions include:

- Exercising regularly at a moderate to vigorous intensity
- Eating a Mediterranean-style diet
- Reducing alcohol intake
- Managing blood sugar
- Maintaining a healthy weight
- Treating hearing problems
- Management of chronic health issues such as depression, high cholesterol, or hypertension
- Preventing head injury
- Discontinuing tobacco use
- Getting consistent, good-quality sleep
- Engaging in mentally stimulating activities and having a higher level of education
- Being social to make life more satisfying
- Engaging in memory training and other cognitive training
(Harvard Health Publishing, 2021).

Dementia

Dementia is an umbrella term for a collection of symptoms of cognitive decline including disruptions in short-term memory, learning new information, planning, problem-solving, decision-making, language, orientation, visual perceptual skills, mood, and behavior, all of which interfere with daily activities. Dementia, however, is not a result of normal aging of the brain (CDC, 2023).

There are **three stages** of dementia: early, middle, and severe.

During the early stage, the person has problems managing medicines, finances, and driving. Memory worsens, as does judgment, and the person has mood changes. During this stage, people may only require a bit of assistance with daily living.

During the middle stage, the person develops problems with walking and performing daily activities, the memory worsens, and the person has a tendency to get lost or wander and become repetitive. The person may become agitated, aggressive, depressed, or anxious. People in this stage may not be able to remain in their homes.

During the severe stage, the person has increasing problems with personal care, including dressing, bathing, and eventually eating. There may be difficulty talking or recognizing loved ones.

MANAGEMENT AND PREVENTION

There is no cure for dementia, but there are medications, treatments, and strategies that can slow decline and help patients with dementia utilize their abilities to function as well as possible in order to have the highest possible quality of life. These involve:

- Identifying, treating, and monitoring underlying problems that increase the risk of dementia and can worsen symptoms
- Checking for and treating problems that can contribute to mental health changes
- Monitoring for development of new medical problems
- Limiting polypharmacy and avoiding certain medications that can affect cognition
- Monitoring for medication side effects
- Teaching caregivers how to manage symptoms and behavioral problems and to find caregiving, financial, and legal support
- Assessing driving ability
- Advance care planning (since diminished capacity is inevitable)
(Press & Buss, 2023; AGS, 2023)

Medications that are often prescribed for those with dementia include cholinesterase inhibitors such as donepezil (Aricept, Adlarity), galantamine (Razadyne), and rivastigmine (Excelon). Antipsychotic drugs, antidepressants, and mood stabilizers may help control specific behaviors that may present, but effectiveness is limited, and they are associated with an increased risk of death.

Memantine (Namenda) is approved for treatment of moderate to severe Alzheimer's disease. In 2023, the FDA approved lecanemab (Leqembi) for mild Alzheimer's disease. Aducanumab (Aduhelm) has also been approved for treatment of Alzheimer's disease (Mayo Clinic, 2023d).

Nondrug interventions are tailored to the person's symptoms and needs in collaboration with the patient and caregiver and may include:

- Environmental interventions
- Reality orientation
- Validation therapy
- Reminiscence therapy
- Dementia support groups
- Exercise programs
- Occupational therapy
- Pet therapy
- Aromatherapy
- Massage therapy
- Music therapy
- Art therapy

(Mayo Clinic, 2023d; Mauk, 2023; DA, 2022)

COMMUNICATING WITH THE PATIENT WITH DEMENTIA

- Communicate in a dignified adult manner, using short sentences and speaking slightly more slowly and clearly; allow sufficient time for responses.
- Maintain eye contact, being aware of cultural preferences for such.
- Lower the tone of voice to accommodate age-related hearing changes.
- Use nonverbal cues; point to or demonstrate what is wanted.
- Do not resort to simple or easier words by assuming the patient has lost a more sophisticated vocabulary.
- Repeat instructions as often as necessary.

- Observe carefully for a person's nonverbal cues.
- Try to communicate in a conversational way.
- Avoid asking question after question. As the disease progresses, ask questions that require a yes or no answer, and break down requests into single steps.
- Offer choices when making a request for which the patient might resist. For example, "Do you want to take a shower before breakfast or after breakfast?" instead of, "It's time to take a shower."
- Whenever possible, avoid distractions such as background noise that can make it difficult to hear, listen attentively, or concentrate.
- Avoid criticizing, correcting, and arguing. When listening to someone with dementia, it is pointless and counterproductive to argue about what the person is saying.
- **Avoid** the following, which require concentration and memory:
    - Asking "Remember when…?" questions.
    - Saying, "I just told you that."
    - Telling a patient, "Your husband died 10 years ago."
    - Asking, "What did you do this morning?"
    - Asking, "Do you recognize me?"
    - Using long, complex sentences such as, "Let's go for a short walk, and then we can go to lunch before we meet George."

(AS, 2023; Mauk, 2023)

MENTAL HEALTH ISSUES IN AGING

The physiologic and cognitive changes of aging can also have major effects on an individual's mental health and social well-being.

Depression

Depression is the most common mental health condition in adults ages 65 and older, but only 10% receive treatment. Depression is frequently confused with the effects of multiple illnesses and the medications used to treat them.

Older people may not have the obvious **signs and symptoms** of depression. Instead, they may:

- Feel tired
- Have trouble sleeping
- Be grumpy or irritable

- Feel confused
- Struggle to concentrate
- Fail to enjoy activities they used to
- Move more slowly
- Have a change in weight or appetite
- Feel hopeless, worthless, or guilty
- Endure aches and pains
- Think of suicide or attempt suicide

Management of depression may include the following:

- Antidepressants
- Psychotherapy
- Complementary therapies
- Electroconvulsive therapy (ECT)
- Stimulation techniques
(APA, 2023; NIA, 2021b)

Suicide

Older adults make up approximately 18% of suicide deaths. Men 65 and older face the highest overall rate of suicide. Older adults plan suicide more carefully and are also more likely to use more lethal methods. Among those who attempt suicide, 1 in 4 older adults will die by suicide, compared to 1 in 200 youths (NCOA, 2022).

It is important to recognize that older adults also may use less aggressive and less visible methods to hasten death, including voluntarily stopping eating and drinking (VSED), also referred to as *silent suicide* (Lowers et al., 2021).

Risk factors for suicide among older persons often differ from those among the young. Suicidal risk factors and warning signs in older persons include:

- Male
- Marital status (risk is nearly two times greater in nonmarried than married)
- Living alone
- Sexual orientation
- Psychiatric disorders, such as depression, especially when accompanied by psychosis or anxiety

- A sense of hopelessness; lack of interest in future plans
- Painful or disabling medical conditions that significantly limit functioning or life expectancy
- Chronic neurologic disorders
- Financial concerns
- Depression or persistent sadness even when other symptoms of depression have lessened
- A history of drug or alcohol misuse or abuse
- A history of prior suicide attempts
- A history of suicide in family members
- Traumatic experiences, including physical or sexual abuse
- Well-defined plans for suicide
- Verbal suicide threats such as, "You'd be better off without me" or "Maybe I won't be around"
- Giving away prized possessions
- Daring or risk-taking behavior
- Prior suicide attempts
- Feelings of loss of independence or sense of purpose
- History of military service
- Impulsivity due to cognitive impairment
- Sudden personality changes
- Social isolation
- Family discord or losses (e.g., recent death of a loved one)
- Inflexible personality or marked difficulty in adapting to change
- Access to lethal means (i.e., firearms, other weapons, etc.)
(MHA, 2023; Schreiber & Culpepper, 2023)

Suicide **protective factors** include:

- Family and community support
- Reasons for living, such as family, friends, pets, etc.
- A strong sense of cultural identity
- Feeling connected to others
- Support from ongoing medical and mental healthcare relationships

- Reduced access to lethal means
- Skills in problem solving, conflict resolution, and nonviolent ways of handling disputes and coping with stress
- Cultural and religious beliefs that discourage suicide and support instincts for self-preservation
  (CDC, 2022)

Management of suicide risk for those categorized as low risk includes:

- Outpatient referral
- Creating a safety plan
- Urging removal of means for suicide from the home
- Providing emergency/crisis numbers (e.g., the National Suicide Prevention Lifeline, 1-800-273-TALK [8255])

For those with moderate risk:

- Possible hospitalization
- Developing a crisis plan
- Taking suicide precautions
- Providing emergency/crisis numbers

Those who have specific plans and the means to carry out their plans are at high risk, and inpatient admission should be offered (Norris & Clark, 2021).

Substance Use in Older Adults

Despite the known trends of increasing substance use disorder among older adults, geriatric addictions remain underidentified and undertreated (Reimers, 2021).

Regular **marijuana** used for medical or recreational reasons is associated with chronic respiratory conditions, depression, impaired memory, adverse cardiovascular function, and altered judgment and motor skills. Marijuana can interact with a number of prescription drugs and complicate existing health issues.

Regular **nicotine** use increases the risk for heart disease and cancer.

Alcohol is the most frequently used substance among older adults, with approximately 65% reporting high-risk drinking. More than one tenth of older adults currently binge drink, defined as five or more drinks on the same occasion for men and four or more for women.

Between 4% and 9% of adults ages 65 and older use prescription **opioid pain medications** for pain relief, and a portion of this population uses illicit opioid **heroin** (NIDA, 2020).

Signs of substance use in the older adult may include:

- Losing interest in hobbies and activities
- Depression
- Anxiety
- Memory loss
- Spending more time alone
- Hostility
- Aggression
- Forgetfulness
- Confusion
- Changes in sleep habits
- Secretive behaviors
- "Losing" prescriptions
- Doctor shopping
- Drastic changes to appearance
- Drop in personal hygiene
- Chronic health complaints
  (Gilmore, 2023)

The U.S. Preventive Services Task Force recommends **screening** all adults for alcohol abuse. The Short Michigan Alcoholism Screening Test—Geriatric Version (SMAST-G) is a screening instrument tailored to the needs of older adults. The Alcohol, Smoking, and Substance Involvement Screening Tests (ASSIST) tool can be used to screen across all substances, including tobacco, alcohol, and illegal drug use (JSI, 2023).

Management for substance abuse may consist of:

- Brief intervention
- Cognitive behavioral therapy
- Contingency management
- Motivational enhancement therapy
- Community-based treatment

- Twelve-step therapy
- Residential treatment facilities
(Reimers, 2021)

ELDER ABUSE

Various **types** of elder abuse include:

- Physical abuse: use of force to threaten or physically injure an older person, including acts such as hitting, kicking, pushing, slapping, and burning
- Emotional/psychological abuse: verbal or nonverbal attacks, threats, rejection, isolation, or belittling acts that cause mental anguish, fear, or distress
- Sexual abuse: sexual contact that is forced, tricked, threatened, or otherwise coerced, including sexual harassment
- Exploitation: theft, fraud, scams, misuse or neglect of authority, and use of undue influence as a lever to gain control over an older person's money or property
- Neglect: failure or refusal to provide for an older person's basic needs of food, water, shelter, clothing, hygiene, essential medical care, safety, or emotional needs
- Abandonment: leaving an older adult who needs help alone without planning for their care
(NCEA, 2020)

Elder abuse can lead to early death, harm one's physical and psychological health, destroy social and family ties, and cause devastating financial loss. Those who may commit elder abuse include children, other family members, and spouses, as well as staff at nursing homes, assisted living, and other care facilities (CDC, 2021; Mauk, 2023).

Identifying Potential Abuse

Prevention and management include assessing for signs and symptoms of potential abuse. **Physical abuse** (especially if there has been a delay in seeking treatment) may be indicated by:

- Unexplained or implausible injuries
- Multiple ED visits; healthcare "shopping"
- Broken bones, dislocations, sprains
- Multiple injuries in various stages of healing
- Traumatic, patchy hair loss
- Broken glasses

- Swelling, pinch marks, hand slap or finger marks
- Bruises, especially when not over bony prominences
- Scratches, cuts, lacerations, punctures
- Burns from a cigarette, immersion line, or in the shape of a hot object such as an iron
- Restraint marks on axilla, wrists, or ankles
- Aspiration/choking from forced feeding

Signs of possible **sexual abuse** include:

- Bruises on breasts or genital area
- Genital infections or venereal disease
- Vaginal or anal bleeding

Possible signs of **neglect** (also self-neglect) are:

- Pressure injuries, especially if not cared for
- Indicators of suboptimal living conditions, such as poor hygiene, torn or dirty clothes, inappropriate or inadequate clothing, flea bites
- Poor state of dentition
- Malnutrition, weight loss, temporal wasting, low serum albumin and cholesterol
- Dehydration, cracked lips, sunken eyes, impaction (water withheld to decrease incontinence episodes), poor skin turgor, elevated BUN and sodium
- Contractures
- General deterioration in health
- Failure to keep medical appointments
- Physical or laboratory evidence of over- or underdosing
- Lack of needed healthcare appliances or supplies
- Lack of physical aids such as dentures, glasses, or hearing aids
- Failure to address issues of safety
- Inability to manage activities of daily living

Possible indicators of **economic abuse** include:

- Caregiver refusal to spend money on care items or services
- Lack of appropriate clothing or grooming for the level of income
- Patient complains of missing clothing, jewelry, or valuable items

- Lonely patient with new "best friend" at office visits
- Sudden appearance of previously uninvolved relatives
- Unpaid medical bills when caregiver is supposed to be handling them
- Checks, new will, power of attorney, or healthcare directives "signed" by a patient who is incapable of doing so
  (Stanford Medicine, 2023)

Caregiver red flags include:

- Patient does not want to be left alone with caregiver
- Patient hesitance to talk around caregiver
- Conflicting accounts of incidents by patient and caregiver
- Caregiver's refusal to allow patient to be seen alone
- Caregiver's reluctance to cooperate with care plan
- Caregiver seems to isolate patient from family, friends, activities, information
- Caregiver denies patient right to make decisions about living arrangements, privacy, personal matters or healthcare choices.
- Caregiver anger or indifference to patient
- Caregiver verbal abuse to patient or healthcare provider
- Caregiver substance abuse or mental illness
- Caregiver history of violence
- Caregiver financial dependence on patient
  (Stanford Medicine, 2023)

Reporting Elder Abuse

By law, everyone in Texas is a mandated reporter. Professionals may not delegate the duty to report to anyone else. The mandatory reporting requirement applies without exception to an individual whose personal communications may otherwise be privileged, including attorneys, clergy, medical professionals, social workers, and mental health professionals.

Texas law requires anyone who has reasonable cause to believe a child, a person 65 years or older, or an adult with disabilities is being abused, neglected, or exploited is required to immediately report it to the Texas Department of Family and Protective Services (DFPS). Time frames for investigating abuse makes it possible for an individual and their family to get help.

A person who reports abuse in good faith is immune from civil or criminal liability. Anyone who does not report suspected abuse can be held liable for a misdemeanor or felony. DFPS keeps the

name of the person making the report confidential. Reports can also be made anonymously according to the provisions of Texas state law.

To report suspected elder abuse, neglect, or exploitation:

- Call 911 or the local law enforcement agency for any emergency or life-threatening situation that must be dealt with immediately.
- Call the Texas Abuse Hotline toll-free (800-252-5400) 24 hours a day, 7 days a week, or report with the secure website (txabusehotline.org/Login/Default.aspx), and get a response within 24 hours. Email reports of suspected abuse or neglect cannot be accepted.
- Call 800-458-9858 to report suspected abuse or neglect that occurs in nursing homes, assisted living centers, or day activity and health services, as well as home health agencies and intermediate care facilities.
  (TX DFPS, 2023; TX HHS, 2023)

Timeframes for investigating reports are based on the severity of the allegations. Anyone convicted of elder abuse in Texas will face serious criminal charges. Depending on the circumstances, a person can be charged with a first-, second-, or third-degree felony. The third-degree felony can mean up to 10 years in prison and a fine of up to $10,000. A second-degree felony can result in up to 20 years in prison and a $10,000 fine, and a first-degree felony is the most serious, resulting in a $10,000 fine and life in prison (Rosenthal et al., 2023).

(See also “Resources” at the end of this course.)

END-OF-LIFE CARE

End-of-life care describes the support and medical care given during the time surrounding death. Older people often live with one or more chronic illnesses and may need care for days, weeks, and even months before death. The goals are to prevent or relieve suffering as much as possible and to improve quality of life while respecting the dying person’s wishes.

A patient who can defend their judgments has the right to make decisions that do not coincide with what the physician believes is beneficial to that patient. Physicians are obligated to comply with the refusal of life-sustaining treatment by a competent patient who has been adequately informed of the consequences of refusal and has applied their own values in making a decision to refuse or who has prepared an advance directive or living will.

Likewise, clinicians may refuse to provide care if:

- There is no medical rationale for the treatment
- The treatment has proven ineffective for the person
- Expectation of survival is low

- The person is unconscious and will likely die in a matter of hours or days even if treatment is given

Treatments that have been started can also be stopped. This is appropriate if the treatments are not beneficial or are not consistent with an individual's wishes and priorities. Even if life-sustaining treatments have been refused or stopped, the individual can still receive care to treat symptoms such as pain or shortness of breath (Health in Aging, 2020; Olejarczyk & Young, 2023).

Preparing older adults and their families to plan and anticipate making decisions regarding end-of-life care and treatment is important, especially in the event that the older adult is not able to make decisions for themself. Older adults should plan and discuss their preferences with significant others, family, and healthcare providers to communicate their wishes through planning advance directives, a living will, and appointing a healthcare proxy.

Palliative Care

Palliative care is the active, holistic care of individuals across all ages with serious health-related suffering due to severe illness, and especially of those near the end of life.

The **goals** of palliative care are to:

- Provide relief from pain and other physical symptoms
- Maximize the quality of life
- Provide psychosocial and spiritual care
- Provide support to help family during the patient's illness and in their subsequent bereavement
  (IAHPC, 2023)

Hospice Care

Hospice provides comprehensive comfort care as well as support for the family, but attempts to cure the persons' illness are discontinued. Hospice is provided for those with a terminal illness whose physician believes they have six months or less to live if the illness runs its natural course. Hospice can be offered at home or in a facility such as a nursing home, hospital, or a separate hospice center.

Hospice care includes a team of people with certain skills, including nurses, doctors, social workers, spiritual advisors, and trained volunteers. They work together with the dying person, the caregiver, and/or family to provide medical, emotional, and spiritual support. A member of the hospice team visits regularly, and someone is usually always available by phone. Along with coaching family members on how to care for the dying person, it provides respite care when caregivers need a break. Respite care can be for as short as a few hours or for as long as several weeks (NIA, 2021a).

(See also the Wild Iris Medical Education course "End-of-Life, Palliative, and Hospice Care.")

CONCLUSION

As America ages, healthcare organizations and healthcare professionals must rethink approaches to healthcare in general, since caring for the older population will soon take up a bigger portion of healthcare resources than caring for the health needs of the young. At the same time, there is a major deficit in adequately prepared healthcare professionals involved in providing geriatric care.

Healthcare professionals today must recognize that older people are a diverse group with different values, functional levels, and illnesses. They must begin to appreciate the need for improving and optimizing the older adult's functioning rather than just focusing on diseases. This is, of course, challenging.

Effective management that engages older adults, family caregivers, and clinicians in collaboratively identifying the older adult patient's needs and goals is necessary in order to implement an individualized care plan, while recognizing that health changes due to aging, together with multiple chronic illnesses, can make creating a personalized health strategy more complex.

RESOURCES

Administration on Aging
https://www.acl.gov/about-acl/administration-aging

Aging (Texas Health and Human Services)
https://hhs.texas.gov/services/aging

National Center on Elder Abuse, State Resources
https://ncea.acl.gov/Resources/State.aspx

National Institute on Aging
https://www.nia.nih.gov/health

Report abuse (Texas Department of Family and Protective Services)
https://www.dfps.state.tx.us/Contact_Us/report_abuse.asp
800-252-5400

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TEST

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1. Which factor is associated with decreased strength and slower and more limited movements in older adults?

a. Decreased bone density
b. Loss of muscle
c. Stiffened joints
d. Hyperkyphosis

2. Which statement is **true** regarding normal age-related cognitive changes?

a. They noticeably disrupt daily life.
b. They affect the ability to complete tasks as usual.
c. There is no difficulty learning and remembering.
d. Underlying medical conditions cause the difficulties.

3. Which statement is **correct** concerning suicide among older adults?

a. Older adults are less likely to use highly lethal means of suicide.
b. Risk for suicide in older adults is the same as in younger people.
c. Older adults may voluntarily stop eating and drinking as a form of "silent suicide."
d. Females ages 85 and older have the highest rate of dying by suicide.

4. Which statement is **correct** concerning Texas reporting requirements for elder abuse?

a. There is no penalty for those who fail to report suspected abuse.
b. In Texas, a convicted abuser may be fined but not jailed.
c. A report can be made anonymously.
d. A report can be made via email.

5. Which statement describes palliative care?

a. Is provided once a patient is determined to have six months or less to live
b. Is intended to provide relief from pain and maximize quality of life
c. Replaces primary treatment modalities
d. Does not support the family in their subsequent bereavement