Course Objectives

• Understand the unique issues that older adults experience
• Discuss the physical and psychological changes that older adults may experience
• Understand medication safety and the older adult
• Understand the significance of teamwork and collaboration when caring for older adults
Older Adult Population Statistics

• The older population--persons 65 years or older—numbered 41.4 million in 2011

• 13.3% of the U.S. population

• One in every eight Americans

• Number of older Americans increased by 6.3 million or 18% since 2000, compared to an increase of 9.4% for the under-65 population. However, the number of Americans aged 45-64 – who will reach 65 over the next two decades – increased by 33% during this period.
Statistics

• The older adult population, which was 39.6 million in 2009, is expected to increase to 72.1 million by the year 2030.

• Between 1980 and 2010, the centenarian population experienced a larger percentage increase than did the total population. There were 53,364 persons aged 100 or more in 2010 (0.13% of the total 65+ population). This is a 66% increase from the 1980 figure of 32,194.
Facts About Aging

• Most older adults maintain their independence and continue to lead full and independent lives
• Many older adults will experience cognitive and physical changes
• Many older adults will experience more diseases than younger adults
Unique Issues of the Older Adult

• Physiological Changes
• Physical Changes
• Cognitive Changes
• Psychological Issues
• Grief and Loss
• Loss of Independence
Erickson’s Life Stages

- Ego Integrity vs. Despair

- Maturity (65 to death) - Reflection on Life

- Older adults need to look back on life and feel a sense of fulfillment. Success at this stage leads to feelings of wisdom, while failure results in regret, bitterness, and despair.
Physical Changes

SENSES

• Hearing = misunderstandings; accidents
• Vision = falls, self-care
• Taste = decreased appetite
• Impaired Thirst = Potential Dehydration
• Smell = Food changes
• Skin = wrinkles, skin breakdown
• Posture and Gait = risk for falls
Cognitive Changes

- Thought Processes
- Forgetfulness
- Confusion
- Sensation and Perception
- Memory Loss
- Intelligence
- Problem Solving
- Language
Common Medical Issues in Older Adult

- Cardiac
- COPD
- Diabetes
- Macular Degeneration
- Hearing and Vision Losses
- Dementia
- Alzheimer's
- Parkinson’s Disease
- Cancer
Cardiovascular Changes

- Arterial wall thickening and stiffening, decreased compliance.
- Left ventricular and atrial hypertrophy. Sclerosis of atrial and mitral valves.
- Strong arterial pulses, diminished peripheral pulses, cool extremities.
Implications

Decreased cardiac reserve.

a. At rest: No change in heart rate, cardiac output.

b. Under physiological stress and exercise: Decreased maximal heart rate and cardiac output, resulting in fatigue, shortness of breath, slow recovery from tachycardia.

c. Risk of isolated systolic hypertension; inflamed varicosities.

d. Risk of arrhythmias, postural and diuretic-induced hypotension. May cause syncope.
Parameters of Cardiovascular Assessment

- Cardiac assessment: ECG; heart rate, rhythm, murmurs, heart sounds (S4 common, S3 in disease). Palpate carotid artery & peripheral pulses for symmetry.

- Assess BP (lying, sitting, standing) and pulse pressure.
Older Adults and Cardiac Disorders

Cardiovascular disease (CVD)
- Hypertension (HTN)
- Heart failure (HF)
- Coronary heart disease (CHD)
- Stroke
- Arrhythmias
- Peripheral vascular disease (PVD)
- Valvular heart disease
Respiratory Changes in Older Adult

- Decreased respiratory muscle strength; stiffer chest wall with reduced compliance.

- Diminished ciliary & macrophage activity, drier mucus membranes. Decreased cough reflex.

- Decreased response to hypoxia and hypercapnia.
Assessment

- Assess respiration rate, rhythm, regularity, volume, depth, and exercise capacity. Auscultate breath sounds throughout lung fields.

- Inspect thorax appearance, symmetry of chest expansion. Obtain smoking history.

- Monitor secretions, breathing rate during sedation, positioning, arterial blood gases, pulse oximetry.

- Assess cough, need for suctioning.
Implications

• Reduced pulmonary functional reserve.
  a. At rest: No change.
  b. With exertion: Dyspnea, decreased exercise tolerance.

• Decreased respiratory excursion and chest/lung expansion with less effective exhalation. Respiratory rate 12-24 breaths per minute.

• Decreased cough and mucus/foreign matter clearance.

• Increased risk of infection and bronchospasm with airway obstruction
Collaborative Care

• Maintain patient airways through upright positioning/repositioning, suctioning.

• Provide oxygen as needed; maintain hydration and mobility.

• Incentive spirometry as indicated, particularly if immobile or declining in function.

• Education on cough enhancement, smoking cessation.
Older Adult and Respiratory Disorders

- There is marked variation in the effect of aging on lung function. Aging is associated with reduction in chest wall compliance and increased air trapping
- Pneumonia
- COPD ---hx of smoking, bronchitis
- Pulmonary Hypertension
- Pulmonary Emboli
GI changes in Older Adult

- Decreases in strength of muscles of mastication, taste, and thirst perception.
- Decreased gastric motility with delayed emptying.
- Atrophy of protective mucosa.
- Malabsorption of carbohydrates, vitamins B12 and D, folic acid, calcium.
- Impaired sensation to defecate.
- Reduced hepatic reserve. Decreased metabolism of drugs.
GI Implications

• Risk of chewing impairment, fluid/electrolyte imbalances, poor nutrition.

• Gastric changes: altered drug absorption, increased risk of GERD, maldigestion, NSAID-induced ulcers.

• Constipation not a normal finding. Risk of fecal incontinence with disease (not in healthy aging).

• Stable liver function tests. Risk of adverse drug reactions.
Collaborative Care-GI

- Monitor drug levels and liver function tests if on medications metabolized by liver. Assess nutritional indicators.

- Educate on lifestyle modifications and over-the-counter (OTC) medications for GERD.

- Educate on normal bowel frequency, diet, exercise, recommended laxatives. Encourage mobility, provide laxatives if on constipating medications.

- Encourage participation in community-based nutrition programs; educate on healthful diets.
GU Changes in the Older Adult

- Decreases in kidney mass, blood flow, GFR (10% decrement/decade after age 30). Decreased drug clearance.

- Reduced bladder elasticity, muscle tone, capacity.

- Increased post void residual, nocturnal urine production.

- In males, prostate enlargement with risk of BPH.
Implications

- Reduced renal functional reserve; risk of renal complications in illness.

- Risk of nephrotoxic injury and adverse reactions from drugs.

- Risk of volume overload (in heart failure), dehydration, hyponatremia (with thiazide diuretics), hypernatremia (associated with fever), hyperkalemia (with potassium-sparing diuretics). Reduced excretion of acid load.

- Increased risk of urinary urgency, incontinence (not a normal finding), urinary tract infection, nocturnal polyuria. Potential for falls.
Assessment

• Assess renal function (GFR through creatinine clearance).

• Assess choice/need/dose of nephrotoxic agents and renally cleared drugs.

• Assess for fluid/electrolyte and acid/base imbalances.

• Evaluate nocturnal polyuria, urinary incontinence, BPH. Assess UTI symptoms.
GU Changes

• Monitor nephrotoxic and renally cleared drug levels.

• Maintain fluid/electrolyte balance. Minimum 1,500-2,500 mL/day from fluids and foods for 50- to 80-kg adults to prevent dehydration.

• For nocturnal polyuria: limit fluids in evening, avoid caffeine, use prompted voiding schedule.

• Fall prevention for nocturnal or urgent voiding.
Changes in Neurovascular System

- Decrease in neurons and neurotransmitters.
- Modifications in cerebral dendrites, glial support cells, synapses.
- Compromised thermoregulation.
Neuro~Implications

- Impairments in general muscle strength; deep-tendon reflexes; nerve conduction velocity. Slowed motor skills and potential deficits in balance and coordination.

- Decreased temperature sensitivity. Blunted or absent fever response.

- Slowed speed of cognitive processing. Some cognitive decline is common but not universal. Most memory functions adequate for normal life.

- Increased risk of sleep disorders, delirium, neurodegenerative diseases.
Neuro Assessment

• Assess, with periodic reassessment, baseline functional status. During acute illness, monitor functional status.

• Evaluate, with periodic reassessment, baseline cognition and sleep disorders.

• Assess impact of age-related changes on level of safety and attentiveness in daily tasks.

• Assess temperature during illness or surgery.
Collaborative Care~Neurovascular

- Institute fall preventions strategies.

- To maintain cognitive function, encourage lifestyle practices of regular physical exercise, intellectual stimulation, and healthful diet.

- Recommend behavioral interventions for sleep disorders.
Cerebrovascular Accidents

• Although CVA can occur at any age the incidence increases with age and co-morbidities.

• Stroke is the third leading cause of death and a foremost cause of serious, long-term disability in the United States. As cardiovascular and metabolic disease incidence rises with age, older people are more likely to experience strokes. Age is the single most important risk factor for stroke. For each successive 10 years after age 55, the stroke rate more than doubles in both men and women. However, stroke is not an inevitable consequence of aging.
Musculoskeletal Changes in Older Adult

- Decreased bone mass
- Decreased mobility
- Increased fractures
Diabetes

• Approximately 25% of Americans over the age of 60 years have diabetes, and aging of the U.S. population is widely acknowledged as one of the drivers of the diabetes epidemic.

• Related factors—obesity, sedentary lifestyle, poor diet
Dementia

- Dementia is a loss of brain function that occurs with certain diseases. It affects memory, thinking, language, judgment, and behavior.
Alzheimer's

- Alzheimer's is a type of dementia that causes problems with memory, thinking and behavior. Symptoms usually develop slowly and get worse over time, becoming severe enough to interfere with daily tasks.
- It is not a normal part of aging.
- Risk Factors:
  - Heredity, Genetics, Head Trauma, Age
Age-Associated Changes in the Immune System

- Immune response dysfunction with increased susceptibility to infection, reduced efficacy of vaccination, chronic inflammatory state.

- Nursing Care Strategies

- Follow CDC immunization recommendations for pneumococcal infections, seasonal, influenza, zoster, tetanus, hepatitis for the older adult
Atypical Presentation of Disease

- Diseases especially infections may manifest with atypical symptoms in older adults.

- Symptoms/signs often subtle include nonspecific declines in function or mental status, decreased appetite, incontinence, falls, fatigue, exacerbation of chronic illness.

- Fever blunted or absent in very old, frail or malnourished adults. Baseline oral temperature in older adults is 97.4 °F (36.3 °C) versus 98.6 °F (37 °C) in younger adults.
Parameters of Disease Assessment

- Note any change from baseline in function, mental status, behavior, appetite, chronic illness.

- Assess fever; Determine baseline and monitor for changes; 2–2.4 °F (1.1–1.3 °C) above baseline. Oral temperatures above 99 °F (37.2 °C) or greater also indicate fever.

- Note typical and atypical symptoms of pneumococcal pneumonia, tuberculosis, influenza, UTI, peritonitis, and GERD.

- Evaluation/Expected Outcomes (For All Systems)
Develop programs to promote successful aging

• Provide staff education on age-related changes in health.
• Follow-up Monitoring of Condition
• Continue to reassess effectiveness of interventions.
• Incorporate continuous quality improvement criteria into existing programs.
Medication Safety

• Adverse drug events cause over 700,000 emergency department visits each year. Nearly 120,000 patients each year need to be hospitalized for further treatment after emergency visits for adverse drug events. As more and more people take more medicines, the risk of adverse events may increase.

• As people age, they typically take more medicines. Older adults (65 years or older) are twice as likely as others to come to emergency departments for adverse drug events (over 177,000 emergency visits each year) and nearly seven times more likely to be hospitalized after an emergency visit.
Medications and Older Adults

- Polypharmacy
- Patient Teaching
- Medication Schedules
- Pill Boxes
QSEN Competencies and the Older Adult

• Patient-Centered Care
• Teamwork and Collaboration
• Safety
• Informatics
• Quality Improvement
• Evidenced-based Practice
Hartford Institute for Geriatric Nursing

Mission Statement:

Shape the quality of health care of older adults through excellence in nursing practice

Vision Statement

People age with health care that is respectful, competent, coordinated and accessible.
Hartford Foundation and AACN

- Older adults constitute a majority – and growing – proportion of people who receive nursing care in the United States.

- A major focus of health promotion is to minimize the loss of independence associated with functional decline and illness.

- On average, older adults visit physicians’ offices twice as often as do people under the age of 65, totaling approximately 248 million visits annually (or 7 office visits per person).

- AACN’s The Essentials of Baccalaureate Education for Professional Nursing Practice (AACN, 2008) provides a framework for developing, defining, and revising baccalaureate nursing curricula.
Gerontological Competency Statements

• 1. Incorporate professional attitudes, values, and expectations about physical and mental aging in the provision of patient-centered care for older adults and their families. Corresponding to Essential VIII

• 2. Assess barriers for older adults in receiving, understanding, and giving of information. Corresponding to Essentials IV & IX

• 3. Use valid and reliable assessment tools to guide nursing practice for older adults. Corresponding to Essentials IX

• 4. Assess the living environment as it relates to functional, physical, cognitive, psychological, and social needs of older adults. Corresponding to Essential IX
• 5. Intervene to assist older adults and their support network to achieve personal goals, based on the analysis of the living environment and availability of community resources. Corresponding to Essential VII

• 6. Identify actual or potential mistreatment (physical, mental or financial abuse, and/or self neglect in older adults and refer appropriately. Corresponding to Essential V

• 7. Implement strategies and use online guidelines to prevent and/or identify and manage geriatric syndromes. Corresponding to Essentials IV & IX
Continue

- 8. Recognize and respect the variations of care, the increased complexity, and the increased use of healthcare resources inherent in caring for older adults. Corresponding to Essentials IV & IX

- 9. Recognize the complex interaction of acute and chronic co-morbid physical and mental conditions and associated treatments common to older adults. Corresponding to Essential IX

- 10. Compare models of care that promote safe, quality physical and mental health care for older adults such as PACE, NICHE, Guided Care, Culture Change, and Transitional Care Models. Corresponding to Essential II

- 11. Facilitate ethical, non-coercive decision making by older adults and/or families/caregivers for maintaining everyday living, receiving treatment, initiating advance directives, and implementing end-of-life care. Corresponding to Essential VIII
References


• American Association of Colleges of Nurses (AACN). Recommended Baccalaureate Competencies and Curricular Guidelines for the Nursing Care of Older Adults.

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