

2019 Geriatric Pharmacy Preparatory Review and Recertification Course

Learning Objectives

Complex Case: Inpatient to Family Medicine Clinic

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
 - Atrial fibrillation
 - Post-myocardial infarction
 - Heart failure
 - Hypertension
 - Insomnia
 - Urinary retention
 - Dry eyes and mouth
 - *Clostridium difficile* infection
- Define the continuum of care available to geriatric patients, such as community resources, home care, assisted living facilities, nursing facilities, sub-acute care facilities, hospice care, and hospitals.
- Identify potentially inappropriate medications (PIM) for older adults.
- Identify medications that contribute to geriatric syndromes or conditions (e.g., falls, cognitive impairment).
- Assess biomedical information considering study design and methodology, statistical analysis, and significance of reported data and conclusions.

Complex Case: Ambulatory - Family Medicine Clinic

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
 - Atrial fibrillation, post-MI
 - Heart failure
 - Hypothyroidism
 - Diabetes mellitus, new onset
 - Benign prostatic hyperplasia
 - Hypotension
 - Gastroesophageal reflux disease
 - Frailty
- Assess financial/reimbursement issues (e.g., formularies, insurance coverage) when making therapeutic recommendations.

- Describe steps to assist a patient with payment issues for medications, medication therapy management services, and medical equipment.
- Describe strategies to assess caregiver knowledge and expectations regarding advanced age and disease on health risks, needs, and treatment of health conditions.
- Evaluate the appropriateness of care plans and services based on older adults' and caregivers' changes in age, health status, and function; assist caregivers in altering plans and actions as needed.
- Evaluate adherence and provide strategies for improvement to older adults, their caregivers and the interprofessional care team.
- Collaborate with older adults, their caregivers, and the healthcare team during care planning and implementation.
- Recognize the need for continuity of treatment and communication across the spectrum of services and during transitions between care settings.
- Select methods to facilitate medication reconciliation during transitions of care.
- Apply outcomes of investigations to optimize care of older adults.

Complex Case: Ambulatory - Geriatric Clinic

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
 - Chronic obstructive pulmonary disease
 - Osteoarthritis
 - Depression
 - Urinary tract infection
 - Glaucoma
 - Herpes Zoster
- Evaluate strategies to promote evidence-based approaches for screening, immunizations, health promotion, and disease prevention for older adults.
- Assess the patient's complete medication list, including prescription and over-the-counter medications, and complementary and alternative therapies.
- Identify the components of an interprofessional, comprehensive geriatric assessment and the roles individual disciplines play in conducting and interpreting a comprehensive geriatric assessment.
- Assess specific risks to older adult safety, including falls, abuse, physical/chemical restraints, and other environmental hazards.
- Recognize the role of advanced directives and living wills, do not resuscitate, power of attorney, and other substitute decision-makers documents in medication use decisions.

Complex Case: Inpatient - Surgery to Skilled Nursing Facility

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:

- Delirium
- Deep vein thrombosis prophylaxis
- Pneumonia
- Anxiety
- Pain management
- Fluid & electrolyte disorder
- Falls
- Define the continuum of care available to geriatric patients, such as community resources, home care, assisted living facilities, nursing facilities, sub-acute care facilities, hospice care, and hospitals.
- Recognize the need for continuity of treatment and communication across the spectrum of services and during transitions between care settings.
- Identify potential hazards of hospitalization for older adults, including immobility, delirium, medication side effects, malnutrition, pressure ulcers, procedures, and hospital acquired infections.
- Assess specific risks to older adult safety, including falls, abuse, physical/chemical restraints, and other environmental hazards.
- Recognize iatrogenic conditions (e.g., healthcare associated infections, falls, pressure ulcers, medication-induced).

Complex Case: Skilled Nursing Care

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
 - Anemia
 - Anxiety
 - Deep vein thrombosis prophylaxis
 - Osteoporosis
 - Pain management
 - SIADH
 - Falls
 - Constipation
- Recognize the need for continuity of treatment and communication across the spectrum of services and during transitions between care settings.
- Identify potential medication-related causes of declining physical and cognitive function.
- Select methods to facilitate medication reconciliation during transitions of care.
- Evaluate the relevance and limitations of biomedical information for the care of older adults.
- Apply outcomes of investigations to optimize care of older adults.
- Develop strategies to prevent or resolve iatrogenic conditions.
- Recognize elder abuse/neglect (e.g., physical, psychological, and financial).
- Identify resources to assist in prevention, reporting, and treatment of elder abuse/neglect.

Statistics, Evidence-Based Medicine and Research Design

- Given an excerpt from a study, determine quality and appropriateness of the excerpt, with specific attention to:
 - study design,
 - statistical analysis,
 - internal/external validity
 - source of bias/confounders
 - quality of conclusions,
 - interpretation of graphs from given studies.
- Determine clinical and statistical significance based on specified excerpts of studies.
- Determine why a statistical test is appropriate or not appropriate, given the sample distribution, data type, and study design. Interpret statistical significance for results from commonly used statistical tests.
- Describe the strengths and limitations of different types of measures of central tendency (mean, median, and mode) and data spread (standard deviation, standard error of the mean, range, and interquartile range).
- Define and evaluate odds ratio, risk/incidence rate, relative risk, number needed to treat, number needed to harm, and other risk estimates.
- Determine whether the study applies to a specified patient population.

Complex Case: Long-term Care

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
 - Alzheimer's with behaviors
 - Hypertension
 - T2DM
 - Geriatric syndromes – malnutrition/failure to thrive/weight loss
 - Renal dysfunction/CKD
- Recognize ethical issues that arise during therapy with individuals who have diminished decision-making capacity.
- Identify potential medication-related causes of declining physical and cognitive function.
- Identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for screening/ treatment.
- Prioritize care needs considering severity of illness, patient preference, quality of life, and time to benefit.
- Advocate interventions and behaviors that promote physical and mental health, nutrition, function, safety, social interactions, independence, and quality of life to older adults and their caregivers.
- Assess specific risks to older adult safety, including falls, abuse, physical/chemical restraints, and other environmental hazards.
- Apply the findings of research to the care of older adults.

- Evaluate the relevancy of clinical practice guidelines and standards of care for older adults.

Geriatric Practice Administration

- Describe the application and integration of evidence-based geriatric literature into institutional guidelines and processes.
- Develop a plan to monitor and evaluate compliance with, and impact of, policies and guidelines (e.g., institutional, evidence based).
- Select quality assurance methods, metrics, and improvement activities, including needs assessment techniques, aimed at enhancing the safety and effectiveness of medication-use processes in the geriatric settings.
- Evaluate regulatory/IRB requirements relative to conducting geriatric research.
- Design and evaluate education programs/materials/tools for geriatric patient populations.
- Assess formulary management protocols in geriatric practice settings
- Develop and apply systems to identify risk factors and prevention for adverse drug events/medication incidents/errors in the geriatric patient population.
- Develop and apply protocols for managing high-risk medications in the elderly.
- Determine factors that enhance the education and training of geriatric pharmacists available in published documents from relevant professional societies (e.g., ASHP, ACCP, SCP, AGS etc.).

Complex Case: Assisted Living

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
 - Urinary incontinence
 - Dysphagia
 - Stroke
 - Neuropathic pain
 - Gout
 - Seizure disorder
 - Substance abuse
- Evaluate self-care capacity, including medication self-administration.
- Recognize signs of substance and medication misuse/abuse in older adults.
- Assess the impact of social behaviors, including use of tobacco, caffeine, alcohol, and illicit drugs.
- Recognize need for referral of patients to other healthcare professionals.
- Assess verbal and nonverbal communication strategies to overcome potential sensory, language, and cognitive limitations in older adults.
- Evaluate adherence and provide strategies for improvement to older adults, their caregivers and the interprofessional team.

Principles of Aging

- Summarize the spectrum of aging and physiological heterogeneity of older adults.
- Apply the knowledge of physiologic changes associated with aging to the clinical use of medications (e.g., pharmacokinetics and pharmacodynamics).
- Utilize knowledge of social and financial issues when making therapeutic recommendations for geriatric patients.

Complex Case: Hospice/Palliative Care

- Recommend and interpret the results of appropriate screening and assessments relevant to the management of the geriatric patient.
- Select the appropriate treatment and monitoring for a complex patient-case with multiple conditions, including:
 - Parkinson's disease
 - Pressure ulcers
 - Coronary artery disease
 - Peripheral vascular disease
 - Hyperlipidemia
 - Pain management
- Prioritize care needs considering severity of illness, patient preference, quality of life, and time to benefit.
- Recognize iatrogenic conditions (e.g., healthcare associated infections, falls, pressure ulcers, medication-induced conditions).
- Define and apply cultural competency concepts (e.g., ethnic/racial, religion, spiritual, age-related, language) and guidelines to healthcare decisions.
- Identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for screening/ treatment.
- Recognize need for referral of patients to other healthcare professionals.
- Recognize the altered benefit-risk ratio of medications at the end of life.
- Discuss end of life issues as they relate to medication appropriateness.

Antimicrobial Stewardship - Considerations and Limitations in Geriatric Care Settings

- Describe regulations and government guidance statements calling for use of antimicrobial stewardship in geriatric care settings.
- Apply current literature describing antimicrobial stewardship techniques in the geriatric care setting.
- Discuss the implications of infectious disease guidelines for use of antimicrobial agents in the geriatric patient population.
- Recommend appropriate antibiotic therapy for a geriatric patient, taking into consideration infectious-diseases management principles and patient-specific variables.
- Make appropriate antimicrobial-monitoring recommendations for a geriatric patient based on patient-specific variables and antimicrobial stewardship principles.

- Develop methods for monitoring trends and identifying opportunities for improvement in antimicrobial use within a geriatric healthcare facility.