CAEP Geri-EM Education – Core Topics and Learning Objectives

Core Topics:

1. **Delirium and Cognitive Impairment in the Emergency Department**
2. **Medication Management in Older Adults**
3. **Geriatric Trauma**
4. **Fall Assessment in Older Adults**
5. **Elder Abuse and Neglect**
6. **Atypical Presentation in Older Adults**
7. **Frailty, Function and Transitions of Care**
8. **Palliative and End-of-Life Care in the Emergency Department**

1. Delirium and Cognitive Impairment in the ED

Learning Objectives:

Differentiate Delirium, Dementia and Behavioural and Psychological Symptoms of Dementia (BPSD)

- Describe and distinguish the clinical features and subtypes of delirium and dementia.
- Understand their prevalence and relevance in the emergency setting.
- Recognize the potential for delirium to be superimposed on dementia.

Assess Cognitive Function in Older Adults

- Understand the utility of ED validated screening tools to assess and document delirium.
- Develop strategies to obtain an accurate history and recognize specific care needs for older adults with cognitive impairment.

Develop a Comprehensive Diagnostic Approach

- Formulate an age-appropriate differential diagnosis for new cognitive or behavioral changes.
- Initiate an appropriate diagnostic work-up to identify underlying causes of delirium.
- Recognize and address common reversible contributors to delirium and agitation (e.g. dehydration, urinary retention, constipation, pain, lack of hearing and visual aids, environmental factors, etc).

Manage Delirium and Behavioural and Psychological Symptoms of Dementia (BPSD)

- Recognize evidence-based non-pharmacologic strategies as first-line management for hyperactive and hypoactive delirium, and BPSD.
- Develop strategies to safely manage agitation and behavioral disturbances while minimizing the use of physical and chemical restraints.
- Understand appropriate indications, risks, and alternatives for pharmacologic management.
- Understand indications for pharmacologic treatment, and if utilizing what are preferred medications, appropriate doses, and dosing intervals to minimize adverse medication effects.

Implement Delirium Prevention Strategies

- Identify environmental and clinical interventions that reduce the risk of delirium in the ED.

Understand Patient Safety, Ethical and Legal Considerations

- Develop an approach to the assessment of decision-making capacity in older adults with cognitive impairment.
- Understand the use and indications of legal instruments such as:
    - Mental Health Act Forms for involuntary admission
    - Provincial Health Care Consent Acts
    - Advance care directives
    - Substitute decision makers, powers of attorney, and involvement of public guardians.

2. Medication Management in Older Adults

Learning Objectives:

Understand Age-Related Changes in Pharmacotherapy

- Describe pharmacokinetic and pharmacodynamic changes associated with aging (ex. Renal and hepatic function).
- Recognize how physiologic changes influence drug metabolism, distribution, and elimination, and how they affect prescribing decisions. (ex dose amount, frequency, duration, etc).

Conducting a Comprehensive Medication Review

- Recognize the importance of evaluating all current medications, including over-the-counter and herbal products.
- Evaluate for polypharmacy, adverse drug reactions, and drug-drug or drug-disease interactions.
- Incorporate medication-related issues as part of the differential diagnosis in presentations of acute illness, cognitive changes, and/or functional decline.
- Explore processes and measures to integrate pharmacy consultation and guidance on medication-related issues for older adult ED patients.

Recognize and Manage High-Risk Medications

- Identify medications that pose increased risk to older adults
- Apply strategies to minimize harm, including deprescribing when appropriate and using safer alternatives (ex. Use of Beer's list, STOP criteria)
- Choose appropriate medications and dosages based on:
    - Age-related physiologic changes
    - Functional status
    - Comorbidities and acute illnesses
    - Current medications and potential interactions
- Avoid prescribing cascades and apply risk-benefit analysis, especially when using high-risk medications (e.g., benzodiazepines, NSAIDs, opioids, insulin, digoxin, warfarin).
- Develop strategies for safe de-prescribing in the ED (ex. Tapering dose schedules, communication with primary care physician)

Communicate Effectively About Medications

- Develop strategies for clear explanation of indications, dosages, administration instructions, side effects, and stopping criteria for all newly prescribed medications.

3. Geriatric Trauma

Learning Objectives:

Understand Unique Trauma Considerations in Older Adults

- Describe how physiologic and anatomic changes with aging impact trauma assessment and resuscitation.
- Recognize how trauma principles (e.g., ATLS) must be adapted for older adults, including altered presentation of shock and abnormal vital signs.
- Understand the concept of frailty and its implications for trauma care.
- Recognize common injury patterns in older adults, including head trauma, rib fractures, and cervical spine injuries.
- Describe appropriate imaging strategies based on mechanism and risk profile.

Recognize adaptations to clinical decision rules and immobilization in older adults

- Understand the applicability and limitations of clinical decision rules for imaging of trauma injuries in older adults including:
    - Canadian CT Head Rules
    - Canadian C-Spine Rules
    - Nexus Spine Rules
    - Falls Decision Rule
- Utilize validated tools to recognize occult shock and subtle trauma presentations. (ex. Shock index, Age-Shock Index)
- Assess and manage cognitive impairment, multi-comorbidity and polypharmacy as part of trauma care.

Address Anticoagulation in Geriatric Trauma

- Explore the limited influence of anticoagulation as a factor in decision-making for CT-head imaging in older adults
- Understand the principles of anticoagulation reversal in the management of geriatric trauma

Address System-Level and Patient-Value Considerations

- Recognize the consequences of undertriage in older trauma patients.
- Understand adaptations in triage criteria and care pathways for geriatric trauma.
- Rapidly establish and document goals of care in serious or life-threatening presentations.

- Explore treatment decisions based on individual benefit-risk assessment, incorporating patient values, frailty and goals instead of age alone.
- Understand the role of interdisciplinary evaluation in each of the assessment, recovery and transitions of care steps for older trauma patients, including minor trauma and fractures.

4. Falls Assessment in Older Adults

Learning Objectives:

Evaluate intrinsic and extrinsic contributors to falls, including:

- Medications and substance use or withdrawal
- Gait instability and balance disorders
- Sensory deficits and environmental hazards
- Acute medical illnesses or deterioration of chronic conditions

Conduct a Comprehensive Assessment of the Fall

- Assess for injuries resulting from the fall and underlying causes.
- Evaluate changes in functional status and risk of recurrent falls.
- Document gait status on all ambulatory fallers.

Develop a Safe and Coordinated Disposition Plan

- Communicate with the patient's care circle, including attempts to reach the primary care provider.
- Coordinate appropriate follow-up care and services focused on fall prevention.
- Consider frailty and functional vulnerability when planning disposition.

5. Elder Abuse and Neglect

Learning Objectives:

Recognize the Spectrum and Patterns of Elder Abuse

- Define elder abuse and neglect, including physical, sexual, emotional, psychological, and financial abuse.
- Identify injury patterns and psychosocial signs that may suggest abuse or neglect.

Screen and Assess for Abuse in the ED

- Demonstrate the ability to sensitively screen older patients for suspected abuse using an appropriate framework.
- Correlate clinical findings with potential mechanisms of abuse or neglect, especially in patients with repeated or unexplained injuries.

Manage and Report Suspected Cases Appropriately

- Understand institutional and provincial protocols for managing suspected elder abuse or neglect.
- Prioritize safety, autonomy, and dignity while ensuring appropriate documentation and follow-up.

6. Atypical Presentations in Older Adults

Learning Objectives:

Understand Why Presentations May Be Atypical

- Describe how age-related changes in anatomy and physiology, along with psychosocial factors, polymorbidity, and polypharmacy, contribute to atypical or vague clinical presentations in older adults.
- Understand the importance of obtaining collateral history from multiple sources, including caregivers, family, or care facilities, to help further delineate “vague” presentations
- Identify that non-specific symptoms such as generalized weakness, fatigue, dizziness, falls, confusion or altered mental status, functional decline, often have multifactorial etiologies.

Develop an Approach to the Investigation and Work-Up of Atypical Presentations

- Emphasize keeping differentials broad for older patients presenting with vague or non-specific complaints.
- Distinguish specifically between asymptomatic bacteriuria and urinary tract infection, and apply a rational approach to urine testing and antibiotic use in older ED patients to avoid missing etiologies for presentation.

7. Frailty, Functional Assessments and Transitions of Care

Learning Objectives:

Define and Recognize Frailty

- Explain what frailty is and how it impacts clinical care, patient outcomes, and decision-making in the emergency department.
- Describe evidence-based frailty screening tools and demonstrate how to incorporate them into ED assessment.
- Illustrate how frailty-centered care pathways can be incorporated into ED setting for older patients (ex. ED geriatrics assessments, adverse-event prevention strategies, disposition planning)

Learn how to Perform Functional Assessments

- Identify the key components of a functional assessment, including mobility, activities of daily living (ADLs), and instrumental activities of daily living (IADLs).
- Recognize the value of a tailored functional assessment, including observation of transitions and gait, and how it may apply to clinical decision-making.

Develop Effective Strategies to Ensure Safe Transitions of Care

- Describe the risk of adverse events and harm for older adults that result from incomplete or ineffective methods during transitions of care of older adults (ex at discharge, transfer to different floor, pre/post procedure, handover, etc)
- Understand the roles and value of allied health professionals, including physiotherapy, occupational therapy, pharmacy, social work, transitional care coordinators, and geriatric nursing specialists.
- Illustrate the importance of clear communication methods during transitions of care:
    - Provide clear discharge summaries/notes and follow-up plans to receiving care providers, including long-term care facilities.
    - Use structured communication strategies to ensure continuity of care across settings.
    - Engage patients and families in understanding the plan of care and expected next steps.

8. Palliative and End-of-Life Care in the ED

Learning Objectives:

Recognize Common Presentations Requiring Palliative Approaches in the ED

- Identify clinical red flags for symptom crises in patients with life-limiting illnesses (e.g., metastatic pain, dyspnea, nausea/vomiting, seizures, intracranial hemorrhage).
- Distinguish between reversible and non-reversible causes of symptom exacerbation.

Learn to Provide Effective Symptom Control in the ED

- Describe pharmacological and non-pharmacological strategies to manage:
    - complex cancer pain, including opioid conversion, titration, and alternative routes of administration.
    - opioid-related side effects, including constipation and opioid neurotoxicity.
    - nausea and vomiting using appropriate antiemetics and adjuvants.
    - respiratory distress

Describe What Goals of Care Conversations Are and How to Navigate Them

- Learn an approach to emotionally charged conversations with empathy, clarity, and support.
- Develop skills in navigating GOC conversations through exploration of phrasing and practice of GOC conversations

Learn to Provide End-of-Life Care in the ED

- Identify and manage terminal symptoms including "death rattle," agitation, pain, seizures and fear.
- Illustrate the role of collaboration with allied health, spiritual care, palliative care, and specialist teams to support and care for ED patients with palliative care goals or at the end of life.
- Apply strategies for personal and team debriefing, support, and resilience after difficult cases.