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Geriatric Trauma

Purpose: To provide a guideline for geriatric patients treated at the Deaconess Regional Trauma Center. Traumatic injury in the geriatric population is associated with higher mortality and morbidity rates compared with younger patients. Recognizing that the geriatric population has a unique set of needs, this guideline addresses the additional considerations of the geriatric population.

Definitions:

- A. The geriatric population is defined as ≥ 65 years of age
- B. Vulnerable geriatric patients are defined as
 - a. Patients ≥ 65 years of age and at least one of the following
 - i. Subdural or Epidural Hematoma
 - ii. ≥ 3 rib fractures
 - iii. Pulmonary Contusion/Pneumothorax/Hemothorax
 - iv. Blunt Cardiac Injury
 - v. Pelvic Fracture/Long Bone Fracture
 - vi. Spinal Fracture with or without deficit (excludes spinous process fractures and thoracic/lumbar transverse process fractures)
 - vii. And at least one of the following medical conditions
 - 1. GFR < 45
 - 2. On Anticoagulant (exclude ASA)
 - 3. Arrhythmias or Ejection Fraction $\leq 40\%$
 - 4. Cirrhosis
 - 5. Alcohol Dependence
 - 6. Baseline home oxygen
 - 7. BMI ≥ 50
 - 8. Diabetes Mellitus
 - 9. Syncope

Guidelines:

- A. Initial Stabilization Care Considerations
 - a. Resuscitate per ATLS protocols
 - b. Consider acute or chronic medical conditions, medications that may contribute to presentation
 - 1. Reversal as appropriate

- c. Lab assessment
 - i. Consider
 - 1. CBC
 - 2. CMP
 - 3. Lactic Acid or ABG for baseline base deficit
 - 4. PT/PTT/INR
 - 5. ETOH/Toxicology Screen
 - 6. Troponin as appropriate
 - 7. Type and Screen
 - 8. Urinalysis
 - d. Imaging as appropriate based on assessment

- B. Management After Initial Stabilization
 - a. Consider geriatric specialist consultation (or Hospitalist) for patients who are deemed vulnerable or per Surgeon discretion.
 - b. Geriatric Consult Expectation
 - i. Role:
 - 1. Assist in optimizing patient care
 - 2. Place orders on conditions that the geriatric specialists are managing
 - ii. Assist in protocol and guideline development for the geriatric population
 - iii. Attend 50% of Trauma Mortality and Morbidity meetings as a liaison
 - iv. Complete a geriatric assessment that includes but is not limited to
 - 1. Assisting in home medication management:
 - a. Adjust medications for renal and liver dysfunction if appropriate
 - b. Continue medications associated with withdrawal potential if appropriate
 - 2. Manage acute and chronic conditions
 - 3. Depression Screen
 - a. If positive, document recommendation
 - 4. Prevention, Identification and Management of Delirium
 - 5. Dementia Screen
 - a. Not required in patients with known clinical diagnosis
 - i. Document recommended changes with current regimen if appropriate
 - b. Screen patients with clinical concern for undiagnosed dementia (i.e. cognitive dysfunction)
 - v. Collaborate with the multidisciplinary care team

- C. Other Consultation Considerations
 - a. Case Management/Social Work for discharge planning
 - b. Physical and Occupational Therapy
 - c. Speech Therapy
 - d. Dietician Consult
 - e. Palliative Care Consult

- D. Consider ICU Admission for Patients with
 - a. Multi-system injury with probability of decompensation/high burden of injury
 - b. ≥ 3 rib fractures, sternal fracture, and/or hemopneumothorax
 - c. Need for blood products
 - d. Spinal cord injury
 - e. TBI
 - f. Multiple long bone fractures, pelvic fractures, and/or open fractures
 - g. Severe pelvic fractures
 - h. Hypotension (SBP < 100)
 - i. Significant injury to one or more organ systems
 - j. Base deficit > -6 or Lactate > 2

- E. Pain Management
 - a. Use elderly-appropriate dosing
 - b. Avoid benzodiazepines
 - c. Monitor use of narcotics
 - d. Consider non-narcotic medications
 - e. Consider epidural analgesia

- F. Mobility Screening
 - a. Refer to
 - i. RN to complete BMAT screening per hospital policy
 - ii. Mobilization as soon as cleared for activity
 - iii. Consider early mobility for ICU patients

- G. Fall Prevention
 - a. Refer to Hospital P&P 40-58 Fall Policy

- H. Skin Assessment
 - a. Complete Braden score and implement interventions per Hospital policy

- I. Non-Accidental Trauma (a/k/a Elder Abuse)
 - a. Refer to Hospital P&P 40-03S Abuse/Neglect/Domestic Violence

- J. Prevention, Identification and Management of Delirium
 - a. Assess for delirium in ICU and medical surgical units using CAM score
 - b. Evaluate and address delirium risk factors
 - i. D: Drugs/Medications/Polypharmacy
 - ii. E: Electrolytes, Environmental factors (hearing aids, glasses, etc.)
 - iii. L: Lack of drugs (withdrawal), Lack of sleep, Low Oxygen (or high PCO₂)
 - iv. I: Infection, Immobility, Iatrogenic (surgery)
 - v. R: Restraints, Reduced sensory input, Retention (urinary/stool)
 - vi. I: Intracranial (stroke, bleed, seizure, meningitis)
 - vii. U: Uncontrolled pain, Underhydration/Undernutrition
 - viii. M: Metabolic (electrolytes, uremia, hepatic encephalopathy)

- c. Management
 - i. Ensure adequate pain management and minimal amounts of sedation
 - ii. Orient to surroundings
 - iii. Have familiar objects at bedside
 - iv. Encourage family involvement
 - v. Early mobilization
 - vi. Decrease excess noise stimuli
 - vii. Lights on during the day and off during the night
 - viii. Review MAR for medications associated with delirium
 - ix. Fall Prevention strategies

- K. Prevention, Identification and Management of Depression
 - a. Prevention
 - i. Encourage patient to be active
 - ii. Communicate with patient and provide reassurance, comfort, and encouragement
 - iii. Encourage decision-making and participation in the plan of care
 - iv. Encourage family participation
 - v. Provide stimulation and interaction
 - vi. Consider the patient's physical, emotional, social, and spiritual needs
 - vii. Give the patient time to respond to questions and requests
 - viii. Speak calmly and give clear and concise explanations about care and treatment
 - b. Assess for depression
 - i. Complete PHQ-9
 - 1. If score is > 9, notify physician

- L. Patient Decision-Making and Care Preferences
 - a. The patient's condition and prognosis should be clearly discussed with the patient and the family
 - i. Document in EMR
 - b. Identify pre-existing advance directives of trauma patient upon admission per Hospital policy
 - c. Consider Palliative Care consult to assist in
 - i. Identifying the health care proxy or surrogate decision maker
 - ii. Identifying any pre-existing advanced directives
 - 1. If no advanced directive is on file, consult Spiritual Care
 - iii. Understanding the family and social contexts
 - iv. Assessing the prognosis

- M. Discharge Planning
 - a. Refer to Rehabilitative Services and Discharge Planning for the Trauma Patient guideline and Hospital P&P 50.03S Case Management Services Department and Hospital P&P 40-02S Patient Discharge Planning and Discharge Procedure

References:

- ACS TQIP Geriatric Trauma Management Guidelines
- Hospital P&P 40-03S “Abuse/Neglect/Domestic Violence”
- Hospital P&P 40-58 “Fall Policy”
- Hospital P&P 50.03 S “Case Management Services Department”
- Hospital P&P 40-02S “Patient Discharge Planning and Discharge Procedure”
- Lilley EJ, Cooper Z, Schwarze ML, Mosenthal AC: Palliative care in surgery: Defining the research priorities. *Ann Surg.* 2018 Jan;267(1):66-72.
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- Optimal Resources for Geriatric Surgery: 2019 Standards May 1, 2019. American College of Surgeons https://www.facs.org/media/u4jf5j3k/geriatricsv_standards.pdf
- Ward K, Reuben D. Comprehensive Geriatric Assessment. UpToDate Dec. 2022, <https://www.uptodate.com/contents/comprehensive-geriatric-assessment>