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Geriatric Hip Fracture Guideline

Purpose: To provide a guideline for geriatric hip fracture patients treated at 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 hip fracture patient.

Goals: To achieve maximal restoration of functional status.

Definitions: The geriatric population is defined as ≥ 65 years of age. Hip fractures are defined as proximal femur, trochanteric, and/or intertrochanteric fractures.

Guidelines:

- A. Resuscitate per ATLS Protocol
- B. Refer to Geriatric Trauma guideline
- C. Imaging/Studies
 - a. AP Pelvic X-ray and a lateral view if possible
 - b. CT-scan is indicated if the X-rays show no fracture but there is a high index of suspicion at physical examination
 - c. EKG
 - d. DEXA Scan:
 - i. Ask patient/family about history of DEXA scan
 - ii. Recommend that this be obtained through primary care physician if indicated
- D. Pre-Op Management:
 - a. Consultation considerations:
 - i. Early consultation with geriatric specialists per Geriatric Trauma guideline
 - ii. Early Orthopedic consultation is recommended
 - iii. Case Management/Social Work
 - iv. Physical and Occupational Therapy
 - v. Speech Therapy for swallowing risks
 - vi. Dietician Consult
 - vii. Palliative Care

- b. Pre-operative risk stratification:
 - i. Focus on stabilizing medical conditions such as:
 1. Dehydration
 2. Hypovolemia
 3. Anemia
 4. Hypoxia
 5. Electrolyte disturbances
 6. Arrhythmias
- c. Medication Reconciliation and Orders
 - i. Complete medication reconciliation on admission
 - ii. Consider holding ACE inhibitors to prevent intraoperative hypotension and AKI
 - iii. Continue beta blockers/rate control medications
 - iv. Resume Home Meds as appropriate
 - v. Continue COPD/Asthma: continued inhaled bronchodilators/steroids.
 - vi. DVT Prophylaxis per Adult DVT Prophylaxis Guideline
- d. Surgical Intervention:
 - i. Recommend OR within 24 hours of arrival
 1. Should not be later than 48 hours after arrival
 - a. Provided the patient is at an acceptable risk level for surgery
 - ii. 1gm of TXA recommended pre-operatively if pt is treated with arthroplasty, unless contraindicated
- e. Pain Management:
 - i. Consider multimodal analgesia
 1. Neuroaxial blockade and peripheral nerve blocks
 2. Consider Peri-operative regional anesthesia as it has been shown to reduce pain and potentially reduce delirium and cardiac events in the postoperative period
 - ii. Non-opioid oral medications
 - iii. Opioids
 - iv. Nonsteroidal anti-inflammatory drugs

E. Post-operative management

- a. Venous thromboembolism prophylaxis
 - i. Refer to Adult DVT Prophylaxis Guideline
- b. Antibiotic Prophylaxis for patients who receive arthroplasty for a hip fracture
 - i. Preferred antibiotic agent:
 1. TMP-SMX DS 1 tab bid for 7 days for relatively broad coverage of common skin flora, including MRSA
 - a. An alternative should be used if a patient is allergic
 2. Qualifications for high risk:
 - a. BMI > 35
 - b. History:
 - i. Diabetes Mellitus
 - ii. Chronic Kidney Disease
 - iii. Active cigarette smoker
 - iv. Autoimmune disease
 - v. MRSA colonization

- c. Optimize pulmonary status (i.e. EZ Pap, Incentive Spirometry, DuoNeb)
 - d. Mobilize patient as early as possible
 - e. Physical and Occupational Therapy
- F. Osteoporosis Management
- a. Vitamin D supplementation
 - i. 50,000 IU Vitamin D per day for 3 days, followed by 5,000 IU daily for 3 months
- G. Discharge
- a. Case Management/Social Work Discharge Planning
 - i. Referrals as needed for placement.
 - 1. See Rehabilitative Services and Discharge Planning for the Trauma Patient.
 - ii. Provide clear discharge instructions which may include but are not limited to:
 - 1. Follow up appointments
 - 2. Post-Op instructions:
 - a. Activity restrictions
 - b. Wound care
 - c. Therapy exercises
 - 3. Updated medication List
 - 4. DVT Prophylaxis as appropriate

References:

- Ackerman L, Schwenk E, Lev Y, Weitz H. Update on medical management of acute hip fracture. Cleveland Clinic Journal of Medicine Volume 88 Number 4 April 2021. www.ccm.org
- ACS TQIP Best Practices in the Management of Orthopedic Trauma 2015
- Management of Hip Fractures in the Elderly: Evidence-Based Clinical Practice Guideline. American Academy of Orthopedic Surgeons Board of Directors 9/5/2014
- AAOS Updates Clinical Practice Guideline for Management of Hip Fractures in Older Adults. 12/15/2021 <https://www.aaos.org/aaos-home/newsroom/press-releases/aaos-updates-clinical-practice-guideline-for-management-of-hip-fractures-in-older-adults/>
- Trauma Guideline: Geriatric Trauma
- Trauma Guideline: Rehabilitative Services and Discharge Planning for the Trauma Patient
- Trauma Guideline: Adult DVT Prophylaxis