SUBJECT: Guideline for the Injured Older Adult
UPDATED: new

EFFECTIVE: 8/10/2023

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PURPOSE: To assure older adults receive age-appropriate care following trauma.

DEFINITIONS:
Older adults: > 64 years of age

PROTOCOL:

Identification of vulnerable geriatric patients:

- Admission orders:
  - EKG
  - Past Medical History/Past Surgical History documented within 24 hours
  - Reversal plan for patients on anticoagulation with life-threatening bleeding
  - Delirium Prevention order set
  - Higher consideration for ICU admission for those with 3 or more rib fractures, multiple long bone fractures, severe pelvic fractures, or hypotension with SBP < 110
- Malnutrition Screening:
  - Prealbumin
  - Albumin
  - Nutrition consultation with malnutrition screening
  - Oral nutrition supplements
  - Increased assistance with eating
- Frailty Scoring: Modified Frailty Index-5 (mFI-5)
  1 point is assigned for each of the following comorbidities:
  - Hypertension
  - Diabetes Mellitus
  - Congestive Heart Failure
  - Chronic Obstructive Pulmonary Disease
  - Functionally Dependent Health Status

The sum of this score is then divided by 5 to obtain the mFI-5 score.
Two or more comorbidities place a patient in the severely frail category. This scoring should be performed during the tertiary survey.

mFI-5 Score	Level of Frailty
0	not frail
0.2	moderately frail
>/= 0.4	severely frail

These guidelines were prepared by the UAMS ACS Division. They are intended to serve only as a guideline based on current review of the medical literature and practice. They are neither policies nor protocols. Their use is at the discretion of the managing physician.

Identification of patients who will benefit from the input of a health care provider with geriatric expertise, consider geriatrics consult for the following:

- Those who remain delirious for more than 48 hours without improvement AND are refractory to first and second-line treatments for delirium
- Ongoing care of complex medical diagnoses
- Frailty Score >/= 0.4

Prevention, identification, and management of dementia, depression, and delirium:

- Prevention: UAMS Inpatient Delirium Prevention Order Set
- Management: UAMS Inpatient Delirium Management Order Set
- Resumption of home medications for dementia or depression and avoidance of medications that can cause delirium (Appendix B)

Medication reconciliation and avoidance of inappropriate medications

- Trauma Team or pharmacist performs medication reconciliation within 24 hours of admission
- Trauma Team or pharmacist evaluates medications for appropriate dosages, indications, risks of polypharmacy, and de-escalation of medication therapies. (Appendix A, B)

Screening for mobility limitations and assurance of early, frequent, and safe mobility

- Protect patients from iatrogenic complications and functional decline
    - The nursing staff will mobilize patients according to the Adult Mobility/Ambulation Policy (NR.CP.1.223). Physical Therapy for early mobilization in the ICU (ICU Liberation program) may be ordered. The physician may order physical therapy for mobilization for patients admitted to a general floor.
    - Patient will mobilize/ambulate, if possible, within 48 hours of becoming medically stable.
    - Fall risk assessed and addressed per Fall Prevention and Management (Number: NR.CP.1.208).
    - Institute aspiration precautions:
        - Head of bed elevation at all times with repositioning.
        - Sitting upright while eating and two hours after completion of eating.
        - Evaluate for swallowing deficits.
    - Perform chest physical therapy by using an incentive spirometer or deep breathing exercises.
    - Place on bowel regimen if given opiates.
    - Perform screening for:
        - Determine risk for Pressure Injury (PI) using the Braden Scale upon admission, each shift, with any change in the patient’s condition, with any patient transfer, or with the discovery of a pressure injury.
            - Any pressure injuries noted should be documented individually. Notify a physician and WOCN team. For all Stage II pressure injuries, notify the WOCN and MD.
        - Documentation of skin integrity and wounds every shift
        - Nursing to initiate pressure injury prevention care plan (Appendix C)

Goals of Care – discussion and documentation in the medical record within 48hrs of admission

- Goals of Care:
    - Target population: trauma patients age > 64 AND at least 1 of the following:
        - SICU admission/transfer
        - High risk for death and survival with total or partial dependence
    - Code status- mandatory documentation in the Electronic Medical Record on admission
    - Identify if the patient has Advance Directive
    - Consider Palliative Care consult for:
        - family conflict concerns
        - unclear goals of care
        - consideration of outpatient hospice or hospice at another facility
    - Consider Hospice Service consult for inpatient transfer if appropriate
    - Discussion and documentation of Goals of Care in the medical record within 72 hours of admission, to include:
        - identification of surrogate decision-maker
        - patient/family priorities and preferences regarding treatment options
        - likely prognosis and potential outcomes
        - advance directive wishes

Implementation of safe transitions to home or other health care facility

- Orders are to be placed for physical, occupational, and speech therapy evaluation within 24 hours of hospital admission or when the patient is medically stable and surgically ready to be evaluated.
- Case Management assesses home, social, and durable medical equipment on admission. This is also evaluated by PT/OT/SLP when performing evaluations.
- Daily multidisciplinary rounds with case management, therapists, and trauma team to discuss discharge planning and disposition to include social support and barriers to discharge.
- On the day of discharge, a discharge summary that includes medication reconciliation, results of initial imaging, and a trauma contact number are provided to the facility and patient.
- Documentation of required follow-up labs and diagnostics are included in the discharge summary.
- Ambulatory referrals are placed for the trauma clinic, and any indicated trauma consultants and incidental findings in the discharge process.
- Patients with assigned Primary Care Providers receive a hospitalization summary electronically upon discharge. Disc with imaging and copy of discharge summary provided to patients who require follow-up outside of the UAMS System or for incidental findings
- Wound care and any other discharge instructions are placed in a hospital discharge order that populates on the “After Visit Summary” that is provided to the patient by the discharging bedside nurse.

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Appendix A
Prescribing Guidelines for Older Adult Polypharmacy

Medication	Prescribing Guidelines
Quetiapine	• Do not use for RASS < +1 for agitation. • Consider melatonin or trazadone first line for sleep • Preferred agent for agitation in patients with Parkinson's or Lewy Body dementia
Olanzapine	• Do not use for RASS < + 1 • Avoid in patients with Parkinson's or Lewy Body dementia
Haloperidol	• Avoid use in TBIs for greater than 3 days • Avoid in patients with Parkinson's or Lewy Body dementia
Gabapentin	• Avoid use unless patient has symptoms of neuropathic pain • May continue if home medication (consider reduced dose if frequent falls).
Famotidine	• Discontinue when appropriate according to PUD Prophylaxis PMG.
PPI	• Choose omeprazole or pantoprazole if a PPI is required.
Diazepam	• Most appropriate for patients < 65 years of age and without significant liver disease.
Lorazepam	• Preferred benzodiazepine (may use for benzodiazepine maintenance if home agent is inappropriate or ETOH withdrawal if patient is excluded from receiving phenobarbital per protocol).
Alprazolam	• Should be restarted if a home medication due to short half-life and risk of withdrawal. • Do not use more than 1 benzodiazepine.
Diphenhydramine	• Use for true allergic reaction only. • Do not use as a sleeping aide.
Ziprasidone	• May use as secondary option for quetiapine or olanzapine failure in frontal lobe TBI patients.
Sleep medications	• Pick ONE only: trazadone, and mirtazapine (max dose 15mg), quetiapine are preferred agents • May use melatonin in addition to above agents. • Consider timing administration for 20:00. • Avoid zolpidem or benzodiazepines
Promethazine	• Avoid if >65 years old.
Odansetron	• Preferred agent for nausea but can prolong QT interval. Monitor QTc if requiring frequent or prolonged dosing.

Muscle Relaxers	• Poorly tolerated in elderly due to anticholinergic effects. Do not use more than 1 muscle relaxer. Do not restart home muscle relaxers unless patient has a documental musculoskeletal disorder or has new onset of specific muscle-spasmodic pain.
	  • EXCEPTION: Baclofen- must be restarted due to risk of baclofen withdrawal (may use reduced dose if PO).
	  • Consult CPS if the patient has baclofen pump.
	• Tizanidine (preferred): can cause hypotension and works centrally (alpha-2 agonist); needs uptitration from 2mg dosage; do not start at 4mg.

NSAIDs	• Do not use more than 1 type of NSAID. NSAIDs are not contraindicated in TBI patients. • Acetaminophen 1 gram TID as first line. If NSAIDs necessary, limit use 1-2 weeks.

Home Antihypertensive Medications	• **Home Antihypertensive Medications** o Restart if BP consistently ≥ 160 systolic or ≥ 100 diastolic and other causes of hypertension have been ruled out (e.g. uncontrolled pain, anxiety, agitation) ·
	  o Consider starting at 50% of home dose and uptitrating dose/adding home antihypertensives stepwise.
	  o If AKI or K > 5 mmol/L: hold ACEs, ARBs, and potassium sparing diuretics ·
	• **New Start Antihypertensive Medications** : BP consistently ≥180 systolic or ≥110 diastolic and other causes of hypertension have been ruled out:
	  o Lisinopril 5-10 mg daily OR losartan 25-50 mg daily (preferred if diabetic): avoid if K > 5 mmol/L, CrCl <30 mL/min, AKI, or during perioperative period
	  o Nifedipine XL 30-60 mg daily: Avoid in HFrEF, cannot be administered via DHT, preferred for renal impairment
	• Chlorthalidone 12.5-25 mg daily (preferred) or HCTZ 12.5-25 mg daily: Monitor for hyponatremia and hypokalemia
	• Encourage follow up with PCP if SBP 140-179 and DBP 90-109 to establish an accurate baseline and appropriate treatment.

Beta Blockers & Diuretics	• Do not restart unless there is clear indication. o Beta-blockers: CHF, CAD, arrhythmias o Diuretics: CHF, edema, ascites d/t cirrhosis • Consider restarting home thiazide-like diuretics for HTN if BP allows. Do not restart if hyponatremic or AKI present.

Appendix B

Medications to Avoid in Older Adults

1. Tricyclic antidepressants (examples: amitriptyline, imipramine)
2. Promethazine
3. Hydroxyzine
4. Benztropine
5. Scopolamine
6. Nitrofurantoin (do not use if CrCl <60 ml/min)
7. Alpha-1 blockers: terazosin, doxazosin. Tamsulosin is preferred if able to take PO.
8. Central alpha-agonists: clonidine, guanfacine, methyldopa (clonidine should not be used as first line antihypertensive)
    a. If clonidine is a home med, we should restart at appropriate dose for current vitals and wean as tolerated. Do not abruptly stop if long term.
9. Barbiturates
10. First generation antihistamines (examples: chlorpheniramine, diphenhydramine)
11. Megestrol: poorly tolerated and increased risk of thrombosis
12. Anti-spasmodics (bladder): tolterodine, oxybutynin, dicyclomine
13. Opiates: We prefer not to use morphine/MS Contin in > 65 yo patients. Oxycontin is preferred if a long-acting is needed.
14. Second generation antipsychotics (example: quetiapine, olanzapine): Black Box warning of increasing mortality in elderly with dementia. Avoid long-term use if at all possible.
    a. If absolutely needed, dose within recommended ranges and for no longer than necessary: olanzapine 2.5-5mg, quetiapine 12.5-100mg, haloperidol 1-5mg.
    b. Consider discontinuing before discharge.
15. Benzodiazepines: Elderly have greater sensitivity to benzodiazepines and slower metabolism. Do not use for treatment of insomnia, anxiety, agitation, or delirium.
    a. May be appropriate for seizure disorders, palliative care, benzodiazepine withdrawal,
    b. or peri-procedural anesthesia. Consider trial of low dose olanzapine.
16. Cyclobenzaprine
17. Tramadol

Appendix C

Nursing Pressure Injury Prevention Care Plan

Management of the patient at risk for or experiencing pressure injury

- For All Patients: The patient will not experience a hospital acquired Pressure Injury (PI)
- Upon admission/transfer to a unit, two RNs should complete a head to toe skin assessment. Any pressure injuries noted should be documented individually. Notify physician and WOCN team. For all Stage II pressure injuries, notify the WOCN and MD.
- Determine risk for Pressure Injury (PI) using the Braden Scale upon admission, each shift, with any change in the patient's condition, with any patient transfer, or with discovery of a pressure injury.
- Obtain physician orders for wound care for other wounds noted such as skin tears, abrasions, lacerations. Each wound should be documented individually.
    - □ Evaluate Specialty bed algorithm with charge nurse to ensure patient does not need a specialty bed or surface. EXCEPTION: Any patient on spinal precautions or Multiple Myeloma patients MUST BE CLEARED BY MD before ordering.
    - □ Avoid positioning on an area of redness
    - □ Keep skin clean and dry
    - □ Assess moisture (sweat, drainage, and incontinence)
    - □ Do not massage or vigorously rub at-risk skin
    - □ Avoid positioning on medical devices or other foreign objects
    - □ Limit head of bed elevation to 30° for patients on bedrest
    - □ Educate patient and family on their risks for pressure injury and how to prevent them

For Patients with a Braden Sensory Perception score < or = 2: The patient will not experience a hospital acquired Pressure Injury

- Reposition every 2° (Use positioning devices to keep patient in place (pillows, wedges) with the goal of positioning the patient's body at a 30° side lying angle)
- Avoid prolonged positioning with Head of Bed >30° unless medically necessary
- Ensure feet are adequately supported (bridging with pillows as needed)

For Patients with a Braden moisture score < or = 2: The patient will not experience a hospital acquired Pressure Injury

- Provide regular inspection, cleansing and use of barrier products
- Utilize skin cleanser and apply skin barrier
- Utilize a bowel management system if not contraindicated (with MD Order)
- Assess moisture (sweat, drainage, and incontinence)
- Keep patient clean and dry limiting layers under the patient including pads and linens to preferably 3 or less (e.g.fitted sheet, draw sheet and one pad)
- Cleanse skin promptly following episodes of incontinence

For Patients with a Braden Nutrition score < or = 2: The patient will not experience a hospital acquired Pressure Injury

- Consult Registered Dietitian
- Daily weights
- Assess ability to eat independently and provide assistance when needed

- Notify MD if patient consuming <50% of food/ fluids or NPO/on clear liquids for >72 hrs
- For patients receiving tube feedings, notify MD if goal rate is not achieved and maintained for >24hrs
- For patients receiving TPN/ Lipids, activate TPN care plan and notify a doctor or nurse practitioner if the patient is not tolerating
- parenteral therapy

For Patients with a Braden Activity OR Mobility score < or = 2: The patient will not experience a hospital acquired Pressure Injury

- Consider use of cushion surface while up to chair
- Ensure dry skin when turning
- Reposition Q2° to 30° side lying using wedges when necessary
- Limit head of bed elevation to 30° for patients on bedrest
- For seated patients, choose a posture that is comfortable for the patient and minimizes pressure/shear on soft tissues and provide adequate seat tilt to maintain posture and pressure redistribution
- Utilize wedges/pillows to assist patient to maintain position
- Ensure feet are adequately supported (bridging with pads as needed)

For Patients with a Braden Friction and Shear score < or = 2: The patient will not experience a hospital acquired Pressure Injury

- Ensure skin is dry when turning
- Use overhead trapeze when possible to facilitate patient assisted mobility
- Pay particular attention to medical devices and ensure proper positioning and padding (nasal cannula, trach tubes, g tubes, etc.)
- Reposition heels with any change in elevation of the head of bed
- Facilitate C-Spine clearance when indicated to remove c collar as soon as possible
- Avoid massage over bony prominences
- For seated patients, choose a posture that is comfortable for the patient and minimizes pressure/shear on soft tissues and provide adequate seat tilt to maintain posture and pressure redistribution
- Provide elbow and heel protectors
- Ensure feet are properly supported (bridging with pillows as needed)

For Patients with existing pressure injury will not experience any additional pressure injury or progression of the existing pressure injury

- Reassess intact skin with each turn in patients with pressure injuries
- Increase activity as rapidly as tolerated
- Document interventions per MD/WOCN recommendations