VANDERBILT UNIVERSITY
MEDICAL CENTER
DIVISION OF ACUTE CARE SURGERY

Trauma Delirium Management Guideline

- **Monitoring and Treatment**
    - The confusion assessment method for the ICU (CAM-ICU) should be monitored each shift and reported to the team during rounds
        - CAM-ICU should ONLY be reported as unable to assess is RASS <-3
        - If CAM positive, consider differential diagnosis (hypoxia, sepsis, CHF, over-sedation, deliriogenic medications)
            - **Hypoactive delirium – CAM positive and RASS 0 to -3**
                - Non-pharmacological management
                - Minimize sedating medications
            - **Hyperactive or mixed hyper/hypoactive delirium – CAM positive and RASS -3 to +4**
                - See algorithm on next page
        - Goal RASS should be specified on **ALL** patients

- **Non-pharmacologic management**
    - **Orient patient** (provide visual/hearing aids, re-orient, encourage communication, encourage proper sleep hygiene, and provide cognitively stimulating activities during the day)
    - **Environment** (Mobilize patients early and often, provide familiar objects in patient's room, minimize noise at night, and remove unnecessary lines/drains)
    - **Adjunctive** (perform SATs daily, provide adequate pain management, correct dehydration and electrolyte disturbances)

- **Deliriogenic Medications**
    - Benzodiazepines
    - Anticholinergics (diphenhydramine, glycopyrrolate, metoclopramide, H2 blockers, TCAs, cyclobenzaprine)
    - Steroids
    - Pain medications (if pain is not cause of agitation/delirium)
        - Decrease opioid dose
        - Utilize multimodal pain regimen

Hyperactive Delirium

(includes mixed delirium with hyperactive component, ex: attempting to wean sedation)

Delirious (CAM-ICU positive)

- Consider differential diagnosis (sepsis, alcohol withdrawal, etc)
  - Remove deliriogenic medications
  - Always attempt non-pharmacologic measures initially

CAM +, RASS +1 to +2

-Ensure adequate sleep and pain control
-Quetiapine 25-50mg q8-12hrs or olanzapine 2.5mg q 8-12hrs
-Haloperidol 1-10mg IV q4h prn breakthrough agitation
- **If TBI, see algorithm on right**

No response at 24hrs or multiple IV doses of haloperidol

-Reassess analgesia
-↑quetiapine to 50-100mg q6-8hrs or olanzapine to 5-10mg q6-8hrs
-Continue haloperidol breakthrough

No response to maximal treatment over 48hrs

-Reassess analgesia
-Change atypical antipsychotic agents

Move to **CAM +, RASS +3 to +4** algorithm at any point as needed

CAM +, RASS +3 to +4

Intubated/Trached

- Ensure adequate pain control
- Haloperidol 5-20 mg IV/IM q15min prn extreme agitation
- Start sedation if none currently infusing
- Bolus (if receiving propofol) and/or increase rate of current sedative

RASS remains ≥ +3 with multiple doses of IV haloperidol

Consider switching to alternate sedative

Move to **CAM +, RASS +1 to +2** algorithm at any point as needed

Extubated

- Ensure adequate pain control
- Haloperidol 5-20 mg IV/IM q15min prn extreme agitation
- Consider dexmedetomidine

Traumatic Brain Injury

- Start Depakote/valproic acid 250-500 mg q8-6h (titrate up to max 60mg/kg/day, if needed)
- Consider early use of propranolol 10-20mg q8-6h (max 360 mg/day) for agitation related to neurologic storming.
- Follow algorithm (see left) for escalation of antipsychotics.

Depakote monitoring:

- Obtain baseline and weekly LFTs; discontinue VPA if:
  - AST or ALT >5x ULN **OR** Alk Phos >2x ULN on 2 separate occasions
  - T bili >2.5 mg/dL with elevated AST, ALT, or Alk Phos
  - INR >1.5 with elevated AST, ALT, or Alk Phos
- Use with caution in hepatic disease
- Obtain valproate level ONLY if concerned for toxicity

IMPORTANT CONSIDERATIONS:

- **Geriatric population (≥ 65 yo)**:
  - Reduce initial antipsychotic and Depakote/valproic acid doses by 50%
  - Avoid haloperidol doses >5mg or quetiapine doses >100mg
  - Consider trialing trazodone 25-50 mg qhs before antipsychotics if agitation due to insomnia
- **Maximize** 1 agent **PRIOR** to altering regimen.
- If **refractory** to all above measures, may trial Geodon (max: 40mg BID); if unsuccessful, consider Psychiatry consult
- Monitor QTc monitoring if receiving multiple QT-prolonging medications. Modify QT-prolonging medications if QTcF > 500.
- Avoid large doses of haloperidol in TBI

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CAM ICU Assessment

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