Clinical Practice Guideline for the Prevention & Management of Alcohol Withdrawal

Risk Factors:

- Recent history of sustained heavy alcohol use
- Previous history of withdrawal
- Age >30
- Presence of concurrent illness
- Admission blood alcohol level > 200 mg/dL in those unable to provide history

Timing and Symptoms of Alcohol Withdrawal: onset as early as 6 hours from cessation from alcohol. Symptoms typically progress from mild to severe with time.

- Mild symptoms as early as 6 hours from cessation of alcohol:
    - Anxiety
    - Nausea/vomiting
    - Mild tremors
    - Diaphoresis
    - Hypertension
    - headache
    - Low-grade fever

- Moderate symptoms: often occur 8-12 hours from cessation of alcohol:
    - Hallucinations typically WITHOUT delirium
    - Hallucinations tend to be visual
    - Otherwise have a clear sensorium

- Alcohol withdrawal seizures (severe symptoms):
    - Usually occur 12-48 hours after cessation of alcohol
    - High risk for recurrence

- Delirium tremens (severe symptoms):
    - Usually occurs about 2-4 days after cessation, but may last up to 7 days
    - Altered sensorium with significant autonomic dysfunction (tachycardia/hypertension/fever)
    - Hypertension
    - Tachycardia
    - Diaphoresis
    - Mild temperature elevations (38 C)
    - May result in death

Management

- ICU admission may be required for those with severe symptoms.
- Provide IV hydration & treat electrolyte abnormalities as needed.
- All patients should receive IV MVI, folate, and thiamine.
- All patients should have glucose levels monitored.
- Thiamine 100 mg IV daily is appropriate for patients with normal mental status.
- Thiamine 500 mg IV q8h if AMS/Wernicke encephalopathy
- Most patients can be managed with symptom-based regimens (see below).
- Those with a history of severe alcohol withdrawal, seizures, or DTs should be considered for prophylactic treatment (see below).
- Medications that lower seizure threshold (such as antipsychotics) should be avoided during initial management.

Prophylaxis recommendation for those with a history of alcohol withdrawal

- Phenobarbital taper (see drug information below)
- Phenobarbital 100 mg PO q8h x3 doses, then 64.8 mg PO q8h x3 doses, then 32.4 mg PO q8h x3 doses
- IV may be substituted if unable to receive oral medications
- Total cumulative dose not to exceed 15 mg/kg IBW.
- Avoid other sedating medications or use them with caution.

Acute withdrawal treatment

- Option 1: **Phenobarbital:**
    - **Severe symptoms**:
        - 10 mg/kg (IBW) IV x 1 dose over 30 minutes
        - decrease dose or use with extreme caution if the patient has recently received a benzodiazepine or other sedating medications.
        - Wait 30 minutes before giving any additional phenobarbital.
        - Then start taper
    - **Mild to moderate symptoms:**
        - 260 mg IV x1 dose, may repeat q30 minutes x3 doses
        - Then start taper
    - **Phenobarbital taper**
        - 100 mg PO/IV q8h x3 doses, then 64.8 mg PO/IV q8h x3 doses, then 32.4 mg PO/IV q8h x3 doses
        - Total cumulate dose should generally remain < 20 mg/kg IBW, but never exceed 30 mg/kg IBW

- Option 2: **Lorazepam**
    - Preferred over other benzos in critically ill (due to short half-life) or cirrhotic (due to impaired metabolism of diazepam) patients.
    - 1-2 mg IV q10 minutes until symptoms subside.
    - High doses can cause propylene glycol toxicity especially with renal dysfunction.
    - If symptoms do not respond to benzodiazepine, consider switching to phenobarbital. Use caution due to synergy between benzodiazepines & phenobarbital.

- Option 3: **Diazepam**
    - Faster onset of action (2-5 minutes) & longer duration (helps prevent rebound symptoms) than lorazepam.
    - Start 10 mg IV and repeat with escalating doses q5-10 minutes (10 mg > 10 mg > 20 mg > 20 mg > 40 mg > 40 mg…) until symptoms subside.
    - If symptoms do not respond to benzodiazepine, consider switching to phenobarbital. Use caution due to synergy between benzodiazepines & phenobarbital.

Phenobarbital drug information

- Long half-lie (3-4 days)
- Doses will accumulate
- Synergistic with benzodiazepines which can cause toxicity at a lower level
- PO, IM, or IV (all have 100% bioavailability)