## Alcohol Withdrawal Syndrome

### Suspect Alcohol Withdrawal?
- Abuse history
- Recent reduction in consumption
- Prior alcohol withdrawal
  - **AND**
  - Tremor
    - Intention tremor
    - Constant (7-12 hours)
    - Does not fatigue
    - May have tongue tremor (cannot fake)

### Assess Severity CIWA
- **CIWA < 10**
  - Labs: none
  - Treatment: none
- **CIWA 10-20**
  - CIWA > 20
  - Labs: Not mandatory
  - Obtain if clinical concern (see CIWA>20 labs)
  - IV not mandatory
  - May establish if PO intolerant or to expedite symptom control (see CIWA>20 treatment)
- **CIWA > 20**
  - Labs: Screening for electrolytes and alcoholic keto-acidosis
    - CBC, FSBS
    - Lactate
    - CPK
    - Renal + Mg + Ph
    - Urinalysis
    - EKG, Looking for: Hypo K (U waves)
    - Hypo Mg (long QTc)
    - Establish IV
  - Treatment:
    - Diazepam 10 mg PO q 45 minutes
    - If clinical evidence of liver failure,[4] then use Lorazepam 2 mg PO q 45 minutes
    - Consider Rally pack PO if malnourished
    - If concern for Wernicke/Korsakoff see next page
  - *Caution with haloperidol*
    - Increases risk of hyperthermia
    - Lowers seizure threshold
    - Prolongs QTc
  - Discharge:
    - Counsel patient [2]
    - Provide resources [3]
    - Benzodiazepine Rx not recommended
      - Not needed if fully treated with diazepam before discharge
  - Patient Stable?
    - Two CIWAs <10, 1-2 hrs apart?
    - AND
    - Tremor gone or minimal?

### Expand AMS/Agitation DDX
- **Sepsis**
- **ICH**
- **PRESS**
- **Thyroidism storm**
- **Meningitis/encephalitis**
  - Consider CT/LP
- **Serotonin syndrome**
- **NMS**
- **Sympathomimetic**
- **Anticholinergic**
- **Hypoglycemia**
- **Withdrawal**
  - Benzodiazepines
  - Barbituates
  - Baclofen

*PITFALL: CIWA is for assessing alcohol withdrawal severity, not for diagnosis. Many other causes of agitation can cause CIWA elevations.*
Severe Alcohol Withdrawal Protocol CIWA > 20

**Wernicke-Korsakoff Treatment**
- Thiamine IV 500 mg q 8 hrs for 3 days
- Admit

**Administer**
- Diazepam IV q 5-10 minutes
- Titrate to RASS -1 (sleepy but arousable), HR <120

- 10 mg: Still agitated?
  - YES
  - 10 mg: Still agitated?
    - YES
    - 20 mg: Still agitated?
      - YES
      - 30 mg: Still agitated?
        - YES
        - 40 mg: Still agitated?
          - YES
          - Bump to SRU
          - YES
        - 30 mg: Still agitated?
          - YES
          - Bump to SRU
          - YES
        - 20 mg: Still agitated?
          - YES
          - 30 mg: Still agitated?
            - YES
            - Bump to SRU
            - YES
          - 20 mg: Still agitated?
            - YES
            - 30 mg: Still agitated?
              - YES
              - Bump to SRU
              - YES
          - 10 mg: Still agitated?
            - YES
            - 20 mg: Still agitated?
              - YES
              - Bump to SRU
              - YES

**Administer**
- Phenobarbital IV q 30 minutes
- Titrate to RASS -1 (sleepy but arousable), HR <120
- May introduce phenobarbital concurrently with diazepam at physician discretion

- 65 mg
  - NO
  - 130 mg
    - NO
    - 260 mg
      - STILL AGITATED?
        - YES
        - Intubate, start propofol/fentanyl gtt
        - Admit to ICU

- Still agitated after total 200 mg diazepam or 40 mg lorazepam?
  - YES
  - Admit*

- Agitation controlled x 1-2/hr?
  - NO
  - Bump to SRU
  - YES
  - Admit*

**Administer**
- Lorazepam IV q 20-30 minutes
- Titrate to RASS -1 (sleepy but arousable), HR <120

- 2 mg: Still agitated?
  - YES
  - 4 mg: Still agitated?
    - YES
    - 6 mg: Still agitated?
      - YES
      - Bump to SRU
      - YES
    - 4 mg: Still agitated?
      - YES
      - 6 mg: Still agitated?
        - YES
        - Bump to SRU
        - YES
    - 2 mg: Still agitated?
      - YES
      - 4 mg: Still agitated?
        - YES
        - 6 mg: Still agitated?
          - YES
          - Bump to SRU
          - YES
    - 2 mg: Still agitated?
      - YES
      - 4 mg: Still agitated?
        - YES
        - 6 mg: Still agitated?
          - YES
          - Bump to SRU
          - YES
    - 2 mg: Still agitated?
      - YES
      - 4 mg: Still agitated?
        - YES
        - 6 mg: Still agitated?
          - YES
          - Bump to SRU
          - YES

**REFERENCES:**


