Pharmacy Pearl of the Month: Benzo-Sparing EtOH Withdrawal Protocol

January 8th, 2026
Trauma APP Meeting

Dignity Health

Points of Confusion about the “new” protocol

- Ordering the protocol without meds for assessments only
- Loading doses and reduction for “sedating meds”
- Level of care required to initiate the protocol
- Dosing limits and need for levels
- Is phenobarbital ever contraindicated

Points of Confusion about “new” protocol

- Ordering the protocol without meds for assessments only
  - Ok, but shifts the responsibility to provider to determine and order appropriate dose of phenobarbital
  - You as the provider lose track of how much phenobarbital your patient is getting…
    - How would this change your plan for the patient?
    - Someone IS keeping track (that’s me, or the floor pharmacist, we calculate daily in AM and afternoon for cumulative dose totals)
    - Provider notifications trigger when cumulative dose of 20mg/kg (based on ideal body weight) has been reached
    - Provider notification triggers if patient does not achieve RASS 0 to -2 after 4 consecutive assessments (Q1H)

Points of Confusion about “new” protocol

- Loading doses and reduction for “sedating meds”
  - This does increase the risk for respiratory depression
    - Other risk factors for respiratory adverse effects:
      - Pneumonia
      - Rib fractures
      - Chest tube(s)
      - Pulmonary contusions
      - Cervical collar or spinal brace
    - Risk factors for excess sedation
      - Age >65
      - Benzos or opiates within 6h
      - Cirrhosis or transaminitis
      - TBI
  - 10 mg/kg is still a relatively low dose compared to what cumulative doses are generally required for severe withdrawal
  - If there is a concern, you can begin with 5 mg/kg then repeat if needed

Points of Confusion about "new" protocol

- Level of care required to initiate the protocol
  - Needs telemetry monitoring to initiate but phenobarbital can be given even on med/surg
  - ICU admission *recommended* for CIWA >20
- Dosing Limits and Levels
  - Once a cumulative dose of 30 mg/kg (ideal body weight) has been reached the protocol must be discontinued
  - You may continue to give phenobarbital but it has to be ordered outside the protocol
    - I recommend utilization of an adjunct (NOT BENZOS) or consideration of an alternative diagnosis
  - There is no level at which alcohol withdrawal is treated, nor is there an established threshold for toxicity
  - Levels may be obtained to evaluate whether there is a pharmacokinetic reason the patient is needing unusually high doses
  - Too much phenobarb looks like respiratory depression and hypotension…benzos may cause synergistic toxicity

Is phenobarbital ever contraindicated

- Pregnancy - benzodiazepines are preferred
  - Crosses the placenta and is associated with congenital malformations
- Drug-drug interactions
  - Phenobarbital induces Cytochrome P450 3A4 which is a major metabolic pathway for many drugs, phenobarbital increases their metabolism leading to decreased serum concentrations and decreased efficacy
  - Most are just short term so no need for concern
  - HIV medications warrant individual consideration for switching to benzo-based protocol
- Pharmacists can access the old benzo-based protocol in cases where it might be necessary to to use it

Courtney's Tips

- Never use the prophylaxis part of the protocol (gabapentin)
- The use of ideal body weight is a way to keep dosing more conservative, it's ok to use total body weight
- If your CIWA is 8-15 start with 10 mg/kg
- If your CIWA is 16-20 start with 12 mg/kg
- If your CIWA is >20 start with 15 mg/kg
- SICU based studies have shown patients require ~28 mg/kg for severe withdrawal
- If you need a big dose super stat and there is no pharmacist in sight, give 390 mg IV push x 1 then figure out how much more you need

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Alcohol Withdrawal Management

PAWSS Assessment - Predicts risk of alcohol withdrawal. Completed once *upon admission to the hospital.*
Provider to determine risk of alcohol withdrawal utilizing PAWSS prior to initiating treatment

PAWSS SCORE

- **<4** → *CIWA-Ar 1 to 7* → **Gabapentin***
- **≥4** → *CIWA-Ar >7* → **PHENobarbital^**

*Renal dosing adjustments per Pharmacy

^ Review for potential Contraindications:
- PHENobarbital allergy
- Diagnosis of alcohol withdrawal unclear
- Drug interactions (HIV meds)
- Cirrhosis with hepatic encephalopathy
- Acute intermittent porphyria
- Chronic Phenobarbital use

Gabapentin* pathway

800mg PO
Loading Dose

Taper to be initiated 6Hrs after Loading Dose
Day 1-2: 600mg PO QID
Day 3: 400mg PO QID
Day 4: 400mg PO TID
Day 5: 300mg PO TID

Assess **CIWA-Ar** and **RASS Q2hr x4**

- **CIWA-Ar remains < 8** for 8Hrs, change to Q4Hr assessments
- **CIWA Ar >8** change to Phenobarbital

PHENobarbital^ pathway

Sedating meds given? (i.e. BZD or Opioids)

- **NO** → **10mg/kg (IBW)** IVPB *over 15 min*
- **YES** → **260 mg IV** *over 5 min*

Assess RASS Q1Hr *(Goal= 0 to -2)*

- **≤0** → **No Dose**
- **+1 or +2** → **129.6mg PO** (or 130mg IV)
- **+3 or +4** → **259.2mg PO** (or 260mg IV)

Reassess RASS Q1Hr & re-dose until symptom control or ***MAX Cumulative Dose 20mg/kg (IBW)***

If **RASS** goal achieved **x 3** consecutive assessments, **Change to Q4Hr RASS assessments**

Assess **CIWA-Ar** within **1Hr** after EACH dose until **RASS 0 to -2** then change to **Q4hr** assessments or **prn**

Supportive Care for All Patients
(No Banana Bags)

- **Thiamine: Assess for risk of Wernicke Encephalopathy**
- **Multivitamin**
- **Folic Acid**
- **Electrolyte replacement**

STOP

20mg/kg (IBW) PHENobarbital *Soft* Stop
- Roughly equivalent to serum level of 25ug/mL
- Persistent anxiety/agitation suggests another problem; evaluate for alternative etiologies

30mg/kg (IBW) PHENobarbital *Hard* Stop
- Roughly equivalent to serum level of 40ug/mL
- Remaining symptoms likely due to other cause (delirium, pain, psychiatric disorders)
- Do NOT give any additional PHENobarbital or BZD

Adapted from:
- MercyOne IA Protocol

CIWA-Ar	Nursing Assessment	MD/LIP notification	MD/LIP Responsibilities
0 – 7 Prophylaxis Phase	• Admission Assessment: Assess CIWA-AR and RASS on arrival and Q2Hr for 8hrs for RASS Goal 0 to -2 • After initial admission assessment is complete, assess CIWA-Ar every 4 hours and prn <u>For Gabapentin:</u> • Assess RASS every 2 hours x 4 • if CIWA-Ar remains < 8 for 8 hours, assessments can be Q4Hr • If CIWA score is ≥8 change to phenobarbital dosing guidelines • If RASS-3, -4 or -5 at any time hold AWS meds and notify MD	• If CIWA becomes ≥8 • If patient is not at RASS goal	• Assess q24Hr and when there is change • Follow gabapentin taper if CIWA-Ar and RASS are stable
8-15 (Mild) or 16-20 (Moderate) Symptom Triggered dosing MD must be notified	• Reassess RASS Q1Hr and re-dose with Phenobarbital until symptoms controlled or cumulative dose 20mg/kg (IBW given) • If RASS 0 to -2 achieved x 3 assessments, change to Q4Hr assessments • Assess CIWA-Ar within 1Hr after each medication dose until RASS 0 to – 2 achieved. Then assess CIWA-Ar every 4 hours and prn • **If at any time RASS -3, -4, -5: HOLD AWS meds and CALL MD**	• If patient receives >20mg/kg IBW • If patient is not at RASS 0 to -2 after 4 consecutive assessments	• Perform a face to face assessment within 4 Hrs of symptom triggered treatment • Consider transfer to ICU if failing symptom triggered treatment
Score> 20 Severe AWS	• If not in ICU, call RRT for evaluation and transfer to higher level of care • RASS/CIWA-Ar as above	• Notify MD for transfer to higher level of care	

***Gabapentin Renal Dose Adjustment for AWS**

CrCl (mL/min)	Day 1	Day 2	Day 3	Day 4	Day 5
≥60	800mg Loading Dose, In 6 hours begin 600mg QID	600mg QID	400mg QID	400mg TID	300mg TID
30-59	600mg BID, first dose STAT	600mg BID	400mg BID	300mg BID	200mg BID
15-29	600mg Daily, first dose STAT	600mg Daily	400mg Daily	300mg Daily	200mg Daily
<15	300mg Daily, first dose STAT	300mg Daily	200mg Daily	100mg Daily	100mg Daily

- Automatic pharmacy renal dose adjustment for gabapentin when used for AWS
- Renal adjustment of gabapentin for all other indication will be discussed with providers on a case-by-case basis
- Continuation of gabapentin upon discharge for completion of taper is at the discretion of providers, risk vs benefit should be considered on a case-by-case basis

<u>Persistent symptoms despite dose >20-30 mg/kg PHENobarbital</u>

Symptoms due to Non-Alcohol Related Delirium (NARD)

- Reevaluate for other etiologies
- Do not give any additional BZD or barbiturates
- Treat patient systematically for delirium:
  - Haloperidol as needed for agitation
  - Melatonin and/or quetiapine to promote circadian rhythm
  - Clonidine, guanfacine, or dexmedetomidine for insomnia/agitation
- For use in epilepsy, therapeutic range of phenobarbital 15-40 ug/mL, mild toxicity may occur >50 ug/mL, severe toxicity >65 ug/mL. Ideal therapeutic target of PHENobarbital for AWS remains unclear but may be 10-30 ug/mL. Maintaining levels <40 ug/mL should establish a margin of safety; however, patients that receive significant doses of BZD may experience synergistic toxicity.