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Psychiatry and Addictions Case Conference
UW Medicine | Psychiatry and Behavioral Sciences

ALCOHOL WITHDRAWAL
DON'T (OR DO?) TRY THIS AT HOME!

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SPEAKER DISCLOSURES

- ✓ Any conflicts of interest? None

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OBJECTIVES

1. Identify factors to consider for managing outpatient alcohol withdrawal.
2. Review medications for alcohol withdrawal.
3. Guidelines/resources.
4. What do I do with my patient who won't follow the guideline?

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HEY, I NEED TO DETOX….

- 42 y/o patient with COPD reports daily alcohol use and requests hospitalization "to detox, I get the DTs when I stop drinking."
- No suicidal ideation or acute medical concerns.
- Patient is afebrile, BP 140/90, and HR 88 bpm.
- Your clinic has a breathalyzer and the patient's BAC is 110 mg% (legal limit = 80mg%).

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WHAT IS YOUR NEXT STEP?

A. Place patient in a quiet area until BAC drops below 80 mg% at which time more accurate history can be obtained.
B. Delirium Tremens (DTs) is a medical emergency, start IV fluids and arrange for immediate hospital admission. Get more detailed history on the ward.
C. Evaluate promptly for signs and symptoms of intoxication and withdrawal.

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RELATIONSHIP BAC –> EFFECT

BAC [%]	Effects
0.02-0.03	Mood elevation. Slight muscle relaxation.
0.05-0.06	Relaxation and Warmth. Increased reaction time. Decreased fine muscle coordination.
0.08-0.09	Impaired balance, speech, vision, hearing, muscle coordination. Euphoria.
0.14-0.15	Gross impairment of physical and mental control.
0.20-0.30	Severely intoxicated. Very little control of mind or body.
0.40-0.50	Unconscious. Deep coma. Death from respiratory depression

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Drunkest Driver in Sweden

- Mean = 425 mg%   (n = 4457)
- Highest DUI = 545 mg%

J Stud Alcohol 60: 400-406, 1999

- World record BAC = 1600 mg%

Wikipedia

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Alcohol Intoxication DSM-5

- Recent Ingestion
- Problematic Behavior
  or Psychological Changes
- One or More of :
  slurred speech incoordination
  ataxia nystagmus
  impaired attention or memory
  stupor or coma
- Not due to other condition

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Delirium Tremens

Medical Emergency

- Medical Emergency → ICU
  potentially fatal
  aggressive sedation, possibly restraints
  cardio-respiratory support
- Onset Typically 48 - 96 hrs after cessation/reduction
  delirium (altered sensorium)
  gross tremors
  autonomic hyperactivity (increased HR, BP, temp)
  hallucinations, agitation
- Preceded by Less Severe Symptoms

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Risk Factors for DTs

- Hx of DTs
- Withdrawal Seizure
- Chronic Heavy Consumption
- Multiple Detoxifications
- Withdrawal Symptoms at high BAC
- Severe withdrawal symptoms (CIWA-Ar > 20)
- Tachycardia > 120 BPM
- Acute Medical Illness, Trauma
  - Infection, Electrolytes, Liver, Neurological Disease

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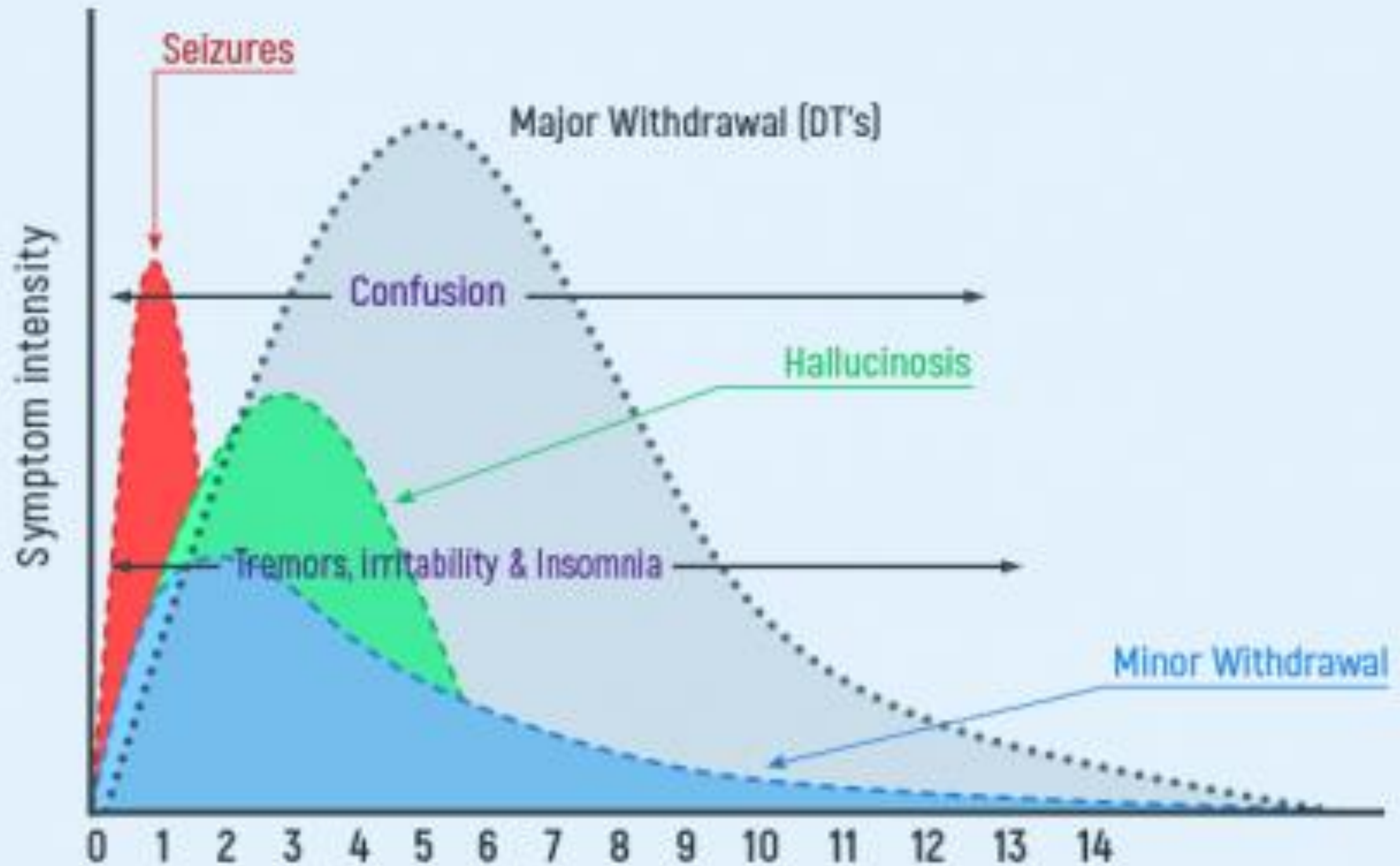
Alcohol Withdrawal Syndromes



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Our patient requesting “detox” is alert, oriented x 3, has clear speech, and no tremor or ataxia on exam.

Patient is worried about “DTs” after getting hand tremors (w/o mental status changes) during prior attempts to stop drinking. No Hx of hospitalizations or medication treatment for alcohol withdrawal.

Manage as inpatient or outpatient? What else would you like to know?

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Inpatient Management

- History of Complicated Withdrawal
  DTs, seizures
- Severe Symptoms (CIWA-Ar > 20)
- Concurrent Benzo, Opioid Withdrawal
- Medical or Psychiatric Risk

- Psychosocial Barriers
- Failure of Outpatient Detox

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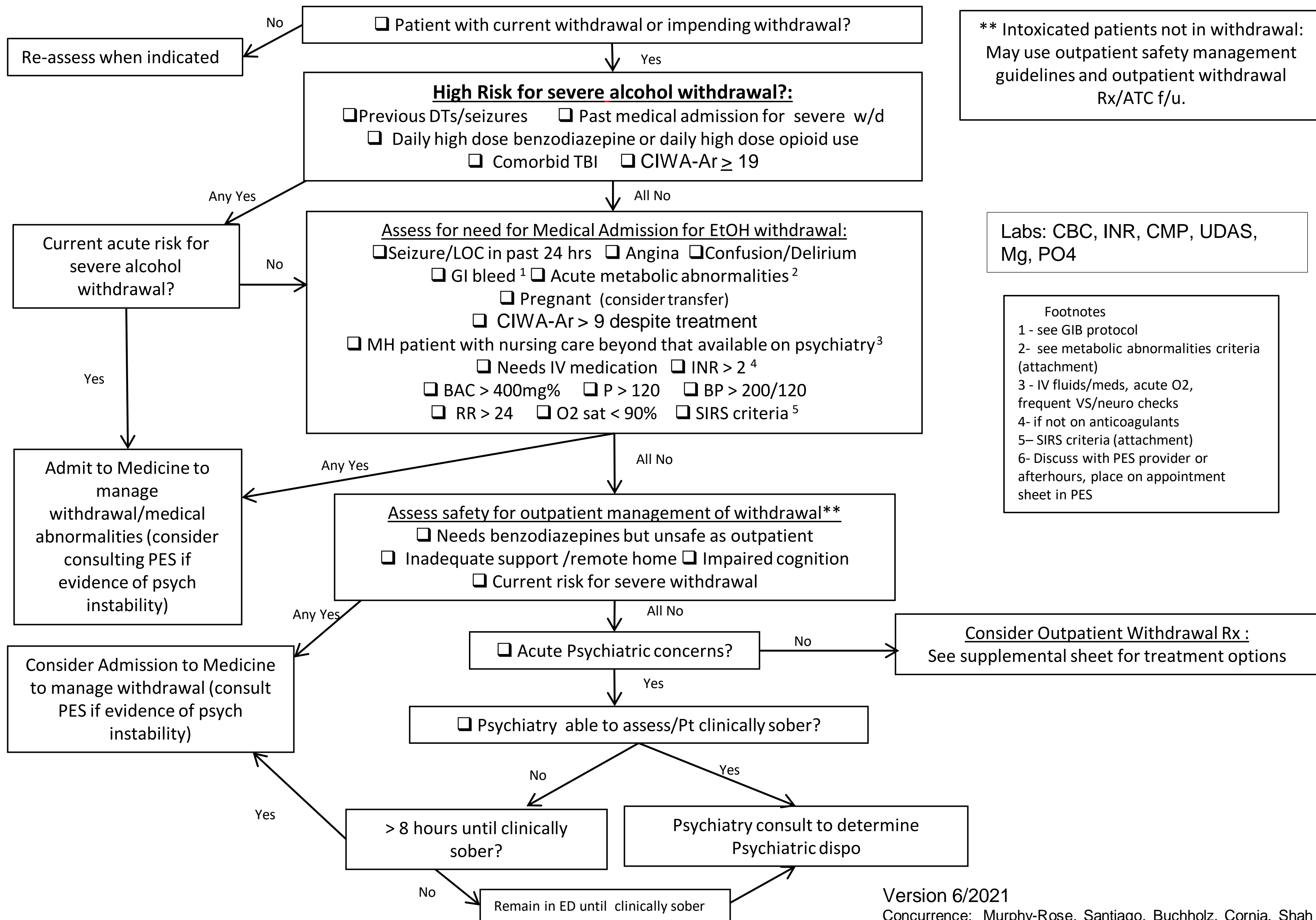
VA ED SOP Level of Care for Acute Alcohol Withdrawal Guideline



Version 6/2021

Concurrence: Murphy-Rose, Santiago, Buchholz, Cornia, Shah Kliewer, Li , Reoux

Outpatient Management

- Absence of Inpatient Criteria
- Psychosocial and Medical Stability
- Adequate Supports
- Frequent Monitoring Available
    - Daily if needed
- Safe for medications

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Educate patients/caregivers

- Encourage fluids (non-caffeinated)
- Low stim environment
- Avoid hazardous activity (driving, ladders, etc.)
- Seek medical assessment if sx worsen:

  Agitation, Severe tremor, Seizure, Altered MSE

  Unable to keep down food/fluids

  Elevated BP, HR, temp

  Worsening medical or psychiatric condition

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Medication Treatment of Uncomplicated Withdrawal

- Gold Standard: Benzodiazepines
  - Long acting vs. Short Acting
  - Front loading
  - Scheduled
  - Symptom-triggered
- Barbiturates, Paraldehyde, Alcohol
- Anticonvulsants
- Antacid, Thiamine, MVI, Magnesium

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Benzodiazepines

	onset	half-life	Metabolism
Lorazepam	Int	Int	Conjugation
Oxazepam	Slow	Short	Conjugation
Diazepam	Fast	Long	Oxidation
Chlordiazepoxide	Int	Long	Oxidation

Onset for PO administration; all are fast IV.

Lorazepam most reliable if IM administration needed.

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BENZODIAZEPINE ADMINISTRATION

- Front loading
  - Moderate to high dose given early; additional PRN
  - Current moderate to severe symptoms or
  - Hx of severe withdrawal
  - Hx w/d seizures: e.g. diazepam 20mg q1h x 3 (Devenyi 1985)
- Scheduled
  - Fixed dose taper (hold if sedation/ataxia) + additional PRN
  - Hx w/d seizures: chlordiazepoxide 50mg q6h x 4 (inpatient protocol)
  - Risk of under or overmedicating
- Symptom-triggered
  - e.g. lorazepam 1-2mg q4-6h PRN x 3 days #10
  - Less risk for under or overmedicating
  - Requires accurate assessment/monitoring
  - May not provide seizure prophylaxis

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SYMPTOM-TRIGGERED

SAITZ ET AL JAMA Aug 17, 1994; 272(7): 519

- Chlordiazepoxide, 100 inpatients
- 50mg Q6h x 4 then 25mg Q6h x 8 plus 25-100mg prn
  - 68 hrs medication administration
  - 425mg / patient
- Scheduled Placebo plus prn
  - 9 hrs medication administration
  - 100 mg / patient
- Resolution, DTs, seizures, hallucinations same

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WHICH ARE TRUE FOR ANTICONVULSANTS?

A. Some anticonvulsant medications are as effective as benzodiazepines in treating mild to moderate alcohol withdrawal.
B. Some anticonvulsants are more effective than benzodiazepines for certain alcohol withdrawal symptoms.
C. Anticonvulsants have less risk than do benzodiazepines for abuse, diversion, and problematic interactions with opioids or alcohol.

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Carbamazepine

- 600-800mg/d tapered over 5 days
  vs. lorazepam 6-8mg/d tapered over 5 d
- Equal Reduction in CIWA-Ar Scores
- Better Sleep, Greater Reduction in Anxiety
  (Malcolm et. al, Am J Add, 11:141-50, 2002)
- Less Rebound, Reduced Alcohol Use
  (Malcolm et. al, J Gen Int Med, 17:349-55, 2002)

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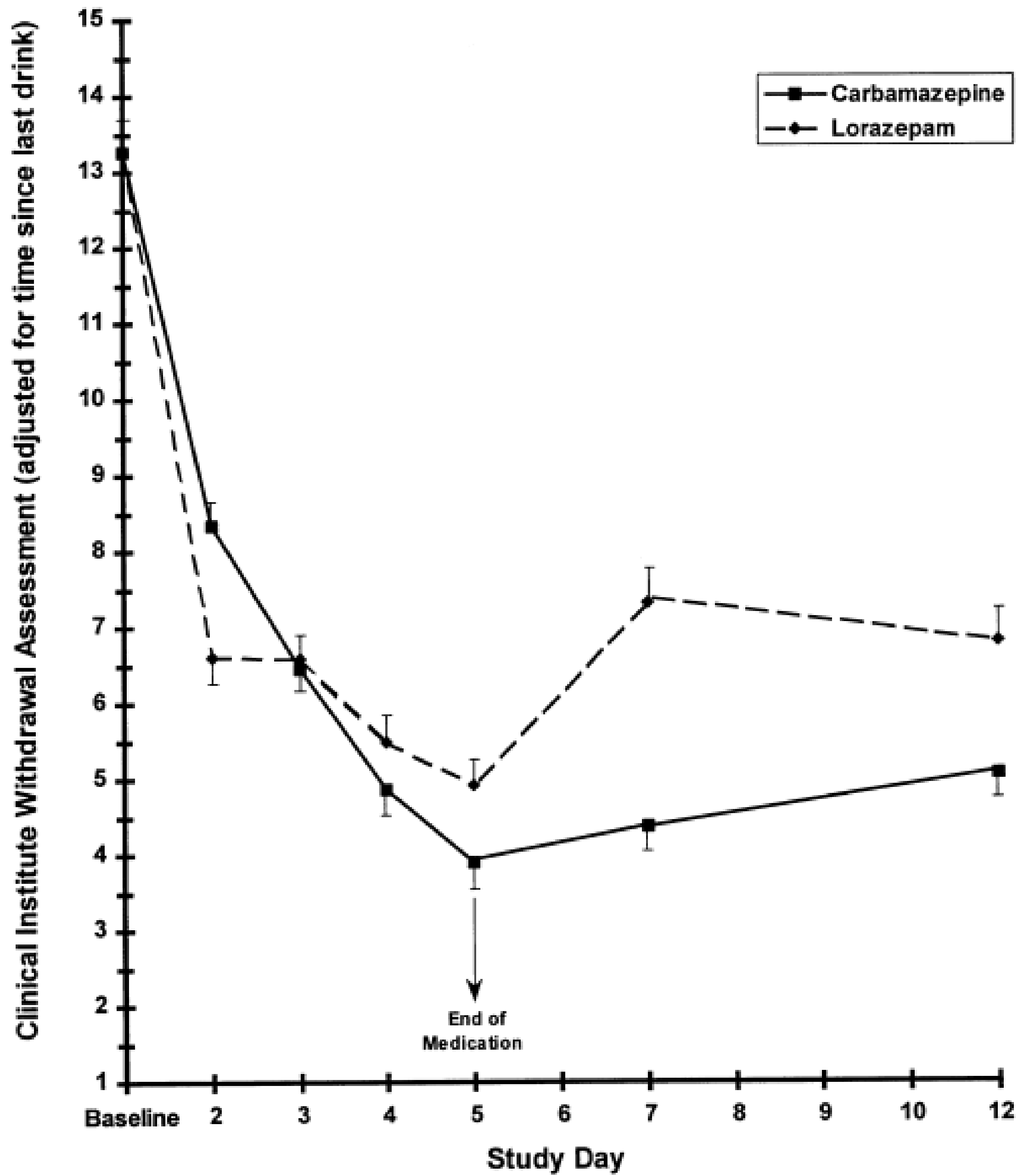

*p=0.007

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Gabapentin

Myrick et al, Alc Clin Exp Res, 33:9, September 2009

- Double-Blind Gabapentin Vs Lorazepam
- High Dose (400mg TID), Low (300mg/TID) vs Lorazepam 6mg/day tapered over 4 days
- 100 subjects in mild-moderate withdrawal
- All groups improved (High Dose Superior to Lorazepam)
- Gabapentin Groups vs. Lorazepam:

  less EtOH use during treatment and follow-up

  less craving, anxiety, sedation

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VALPROIC ACID

Table 1
Valproic acid

Investigators (Year)	N	Design	Comparison	Results
Bocci and Beretta (1976)	25	Open-label	None	"56%" improved CGI
Brausseur (1978)	375	Open-label	None	"78%" excellent results
Lambie, Johnson, Vijayasenan, and Whiteside (1980)	49	Open-label	VPA vs. no treatment	VPA=0 seizures No treatment=5 seizures
Hillbom et al. (1989)	138	Double-blind	PBO, VPA, CBZ	Adverse effects of VPA and CBZ
Hammer and Brady (1996)	2	Case reports BPAD/AW	None	Rapid CIWA ↓ Reduced LZP prn Reduced mania
Rosenthal, Perkel, Singh, Anand, and Miner (1998)	37	Randomized open-label	Phenobarbital	Half as much prn phenobarbital in VPA group
Myrick, Brady, and Malcolm (2000)	11	Open-label	LZP	VPA=LZP
Reoux et al. (2001)	36	Double-blind	Oxazepam	Use of VPA led to reduced use of oxazepam

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PHENOBARBITAL

- Inpatient or experienced clinicians
- Narrower therapeutic window
- When benzodiazepine or AED contraindicated
- Refractory to benzodiazepine
- Different mech of action and longer half-life
- Adjunct with benzodiazepine
- Monotherapy

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Refractory DTs: Propofol

McCowan Crit Care Med 2000 vol26, no6, p1781

- Case Series 4 patients

  Lorazepam

  90mg/hr, 3650mg/3days   80mg/hr, 1130mg/day

  24mg/hr, 1080mg/3days   30mg/hr, 1150mg/2days

  Responded to Propofol

  - Dose Dependent Hypnotic Effect
  - Induce/Maintain Anesthesia, Ventilator Support
  - Gaba Activation, Glutamate NMDA Inhibition

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REVIEW: CONSIDER OUTPATIENT ALCOHOL WITHDRAWAL

- No hx of DTs, seizure, previous severe w/d
- Adequate support/resources; Educate
- Mild/Moderate withdrawal

  gabapentin 300mg TID -> 400mg/600mg TID x 7days

  consider ongoing Rx for protracted withdrawal/craving

- Benzodiazepine (+/- anticonvulsant)

  lorazepam 1-2mg q 6h PRN (or scheduled) #10

  chlordiazepoxide 25mg #10

  risks-benefits, limited amount (1-3 days)

- Determine follow up options and frequency

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GUIDELINES

- 2020 ASAM Clinical Practice Guideline on Alcohol Withdrawal
- 2021 VA/DOD Clinical Practice Guideline on Management of Substance Use Disorders
- UpToDate
- Management of Alcohol Withdrawal in the Emergency Department: Current Perspectives Open Access Emergency Medicine 2020:12 53-65

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COMMON SCENARIOS

- Recommend inpatient
  - Insurance declines, Patient declines
- Recommend inpatient
  - Admission delayed
- Recommend outpatient management
  - Lives alone, Poor supports, No transportation
- Initial visit via telehealth

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