# Medical Management of Ambulatory Alcohol Withdrawal

Project ECHO:Ambulatory Alcohol Withdrawal Management and Treatment

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# Key Points Today

1. What are we “medically managing”?
2. Medication Options
3. Choosing a Medication
4. Sample Med Regiments
5. Supportive Care and Follow-up
6. Common Questions

# Withdrawal = Disequilibrium

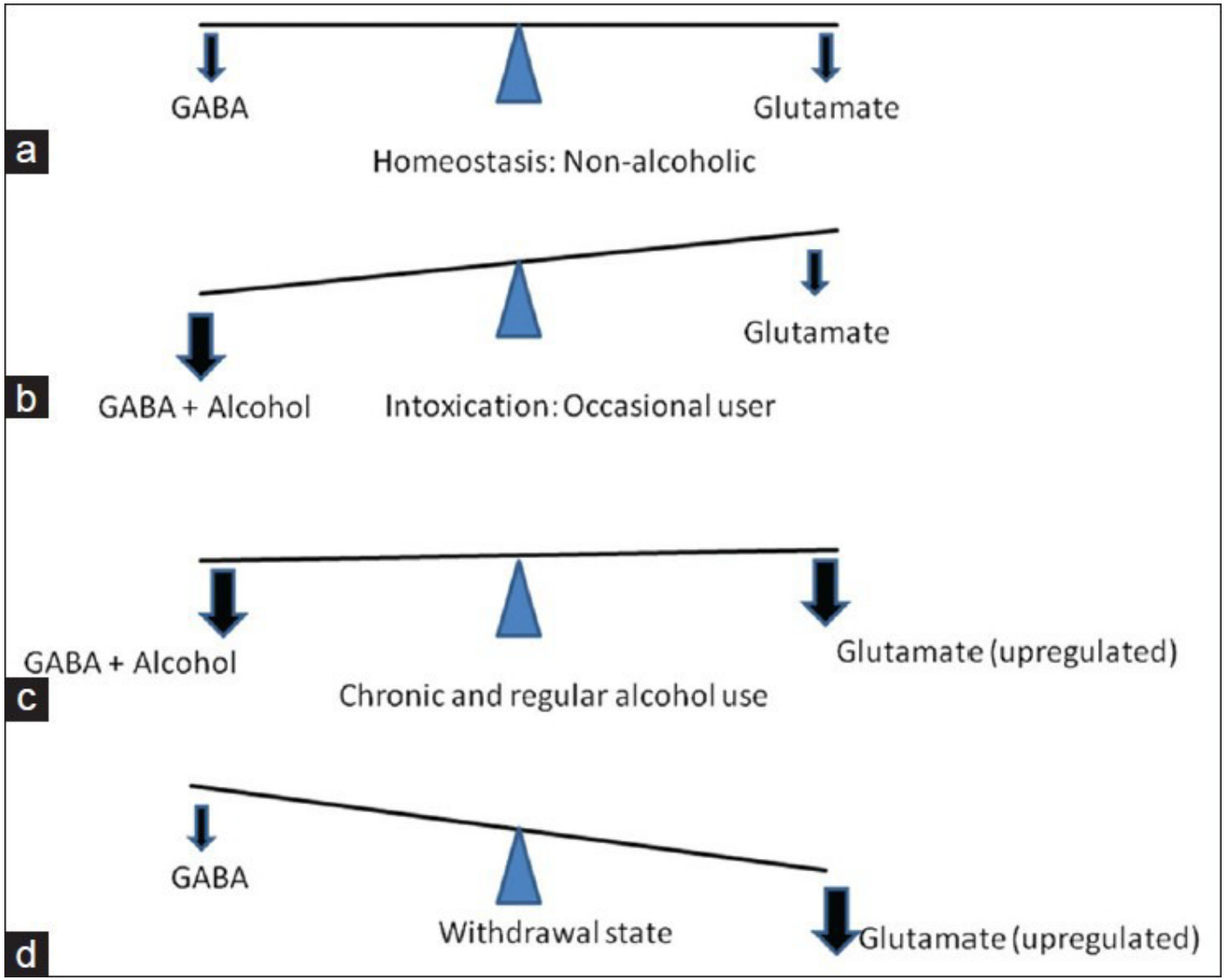
A: GABA (inhibitory) in balance with glutamate (excitatory)

B: EtOH facilitates GABA action, causes CNS depression

C: Chronic use:

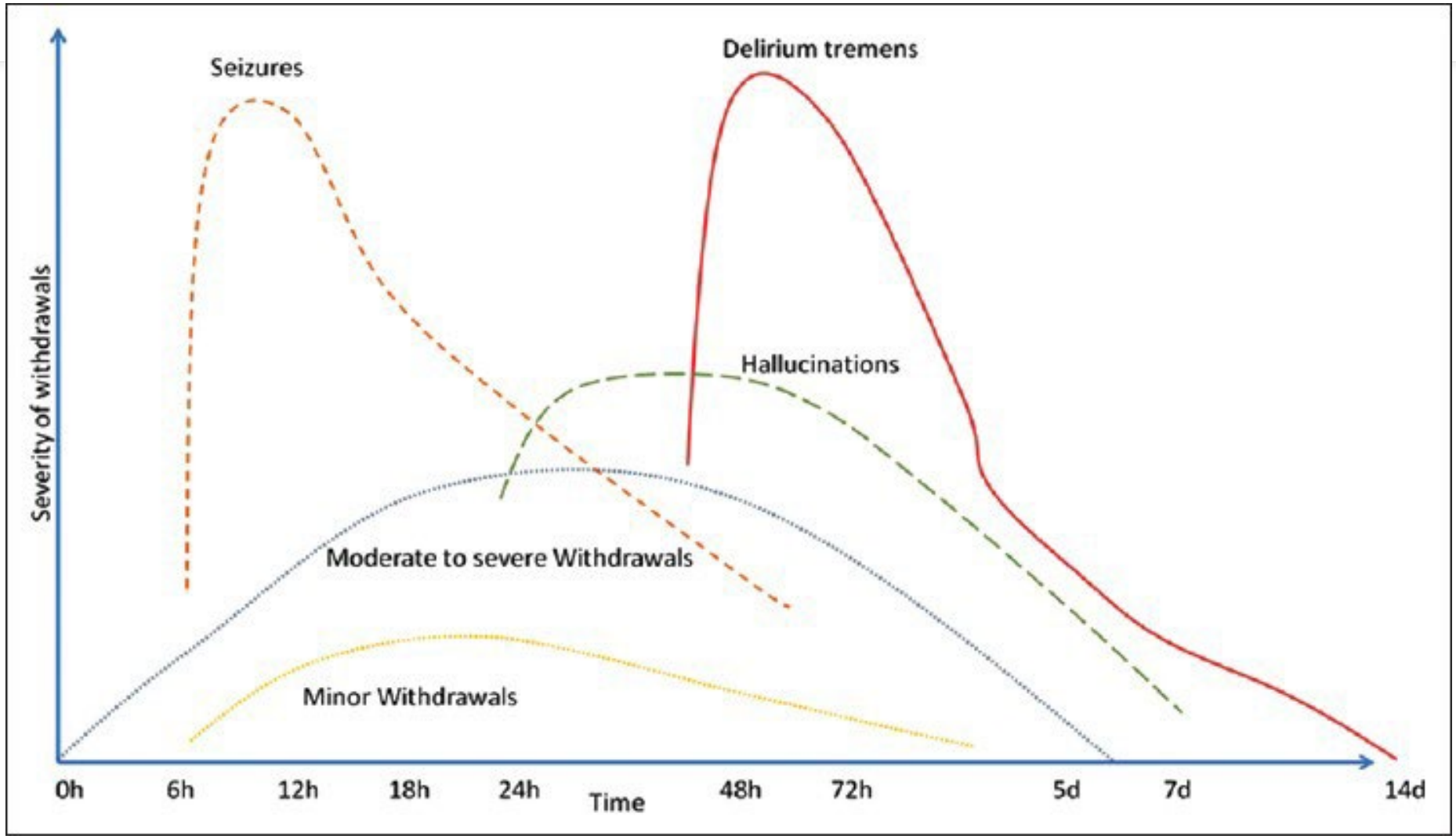
- Down-regulates GABA receptors -> need more EtOH (tolerance)
- Upregulates NMDA receptors/more glutamate to maintain balance

D: Sudden cessation of EtOH -> unopposed CNS excitation




Littleton 1998
Kittamani 2013

# Time Course of Withdrawal Symptoms




Kattimani 2013

# Kindling Phenomenon

- Severity of EtOH withdrawal symptoms increases after repeated withdrawal episodes
- Even patients experiencing **mild withdrawal** should be treated aggressively to prevent the increase in severity of subsequent withdrawal episodes
- Kindling may also contribute to a patient's relapse risk (increased cravings)
- Even cutting back alcohol (to a significant degree) can cause withdrawal symptoms

Becker 1998

# Medication Options: Anti-Convulsants

## **Gabapentin** and Carbamazepine

Appropriate for:

- Mild to moderate alcohol withdrawal syndrome
- Outpatient treatment
- Adjunct to benzodiazepine therapy
  - Ensure adequate dose of BZD has been given

Benefits:

- Sufficient evidence of efficacy and safety for mild-moderate AWS
- May reduce kindling phenomenon
- Compared to BZD's:
  - Better safety profile
  - Less sedating
  - Lower risk of drug-drug interactions
- Evaluations of efficacy for patients requiring hospitalization is lacking

Stock 2013
ASAM Clinical Practice Guideline on Alcohol Withdrawal Management

# Medication Options: Benzodiazepines

- Generally considered first-line for alcohol withdrawal syndrome
- Use longer-acting BZD (diazepam or chlordiazepoxide) for "gentler withdrawal course"
- For patients with moderate-severe hepatic impairment, use BZD without hepatic metabolism (lorazepam, oxazepam) or refer for inpatient withdrawal management

ASAM Clinical Practice Guideline on Alcohol Withdrawal Management

# Sample Dosing Regiments

## AMBULATORY ALCOHOL WITHDRAWAL TREATMENT REGIMENS

| | Diazepam based^ | Gabapentin based |
|---|---|---|
| **Day 1** | 10mg q6hrs* | 300mg q6hrs* |
| **Day 2** | 10mg TID | 300mg TID |
| **Day 3** | 10mg BID | 300mg BID |
| **Day 4** | 10mg once | 300mg once |
| **Additional PRNs** | 5 x 10mg pills | 5 x 300mg pills |

^Can substitute chlordiazepoxide 50mg for diazepam 10mg

*If >10 drinks per day double dose on first day (Dr Holt Expert opinion)

THE CURB SIDERS

# Picking a Medication

## Choose Gabapentin if:

- Expect more mild withdrawal
- Fewer relative contra-indications
- Contra-indication to benzodiazepine
- Will reduce kindling phenomenon
- May be continued for maintenance therapy at 300-3600mg a day (typical dose 1800 mg/day) for reduction in heavy drinking days)

## Choose a Benzodiazepine if:

- Already in mild to moderate withdrawal in your office
- Expect moderate withdrawal
- More relative contra-indications
- Already on gabapentinoid

Mason 2014
Stock 2013
Kranzler 2019

# What about Symptom-Triggered Regiments?

- May help to avoid over- or under-treatment with fixed dosing, BUT
- May also be more difficult to administer; someone must accurately assess signs and symptoms
- Probably a better option for inpatient treatment
- Option: Can provide 5 extra tabs of gabapentin/chlordiazepoxide/diazepam to take as needed

# Getting Started and Following Up

- Generally don't start on first visit
- Informed consent/treatment agreement
- 4 - 5 day process:
  - Day 1 in person
  - Daily check- in
  - Every other day in person or telehealth
- Can use SAWS if want to quantify withdrawal symptoms (e.g. take extra dose for SAWS $\geq$ 12)

The Short Alcohol Withdrawal Scale (SAWS)

| | None (0) | Mild (1) | Moderate (2) | Severe (3) |
|---|---|---|---|---|
| **Anxious** | | | | |
| **Sleep disturbance** | | | | |
| **Problems with memory** | | | | |
| **Nausea** | | | | |
| **Restless** | | | | |
| **Tremor (shakes)** | | | | |
| **Feeling confused** | | | | |
| **Sweating** | | | | |
| **Miserable** | | | | |
| **Heart pounding** | | | | |

Gossop 2002

# Supportive Care

- Provide:
  - MVT with folate
  - Thiamine 100mg
- Adjunctive meds:
  - Ondansetron
  - Hydroxyzine/clonidine prn anxiety
- Hydration hydration hydration
- Someone in home to help patient and provide you with collateral information

# Common Questions

What if the patient overuses the benzodiazepine?

When should I send to the ER?

When do I talk about what will happen after withdrawal management?

# Thank you!

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# References


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# Standard Drink Conversion Table

| Alcohol category | Also known as | Volume | % ABV* | # drinks |
|---|---|---|---|---|
| **Beer** | Bottle, can | 12 oz | 5% | 1 |
| | Tallboy | 16 oz | 5% | 1.5 |
| | Tallboy, bomber | 22 oz | 5% | 2 |
| | Forty | 40 oz | 5% | 3.3 |
| **Malt liquor** | Tallboy | 16 oz | 6-8% | 2-3 |
| | Tallboy | 16 oz | 12% | 4 |
| | Tallboy, 4 Loko | 24 oz | 12% | 5 |
| | Forty | 40 oz | 12% | 8 |
| **Wine** | Glass | 5 oz | 12% | 1 |
| | Bottle | 26 oz | 12% | 6 |
| | Magnum | 1.5 L | 12% | 12 |
| | Jug/cask/box | 3-5 L | 12% | 24-40 |
| **Alcohol** | Shot | 1.5 oz | 40% | 1 |
| | Nip | 2 oz | 40% | 1.6 |
| | Pint | 16 oz | 40% | 11 |
| | Fifth | 26 oz | 40% | 17 |
| | Liter/Quart | 32 oz | 40% | 21 |
| | Handle, 1/2 gallon | 1.75 L | 40% | 40 |

***Standard ABVs listed, if patient reports drinking a different %ABV product (e.g 100 proof (50% alc/vol) liquor), adjust standard drinks accordingly**

- Adapted from: https://www.integration.samhsa.gov/clinical-practice/sbirt/Stnd-Drink-Ruler-_chart.pdf

# BZD Conversion Chart

| | Diazepam (Valium) | Chlordiazepoxide (Librium) | Lorazepam ( Ativan) | Oxazepam ( Serax) |
|---|---|---|---|---|
| Dose Equivalent | 5 mg | 25 mg | 1 mg | 15 mg |
| Onset of action | Rapid | Intermediate | Intermediate | Slow |
| Half-life | Long | Long | Short | Short |
| Active Metabolites | Yes | Yes | No | No |
| Hepatic Metabolism | Yes | Yes | No | No |
| Routes of Administration | PO, IV | PO | PO, SL, IV, IM | PO |

Dose equivalents to 30mg of Phenobarbital and 0.5mg of Alprazolam