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PSYCHIATRY ACADEMY

Inpatient & Outpatient Medically Managed Withdrawal

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Disclosures

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Neither I nor my spouse/partner has a relevant financial relationship with a commercial interest to disclose.

Learning Objectives

- Understand the spectrum of alcohol withdrawal syndrome (AWS) and its complications
- Determine the proper setting to manage AWS for individual patients
- Utilize best practices when managing AWS in the inpatient and outpatient settings

A Case of AWS

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- A 38-year-old patient with generalized anxiety disorder and alcohol use disorder comes to an urgent appointment at your outpatient clinic seeking assistance with alcohol withdrawal management
- He reports drinking 3 mixed vodka drinks every day – “I never go over that”. Last drink was last night, about 12 hours ago
- He denies ever experiencing complications of alcohol withdrawal syndrome in the past, specifically denying seizures, delirium, or ICU admissions during any episodes of withdrawal

Alcohol withdrawal syndrome

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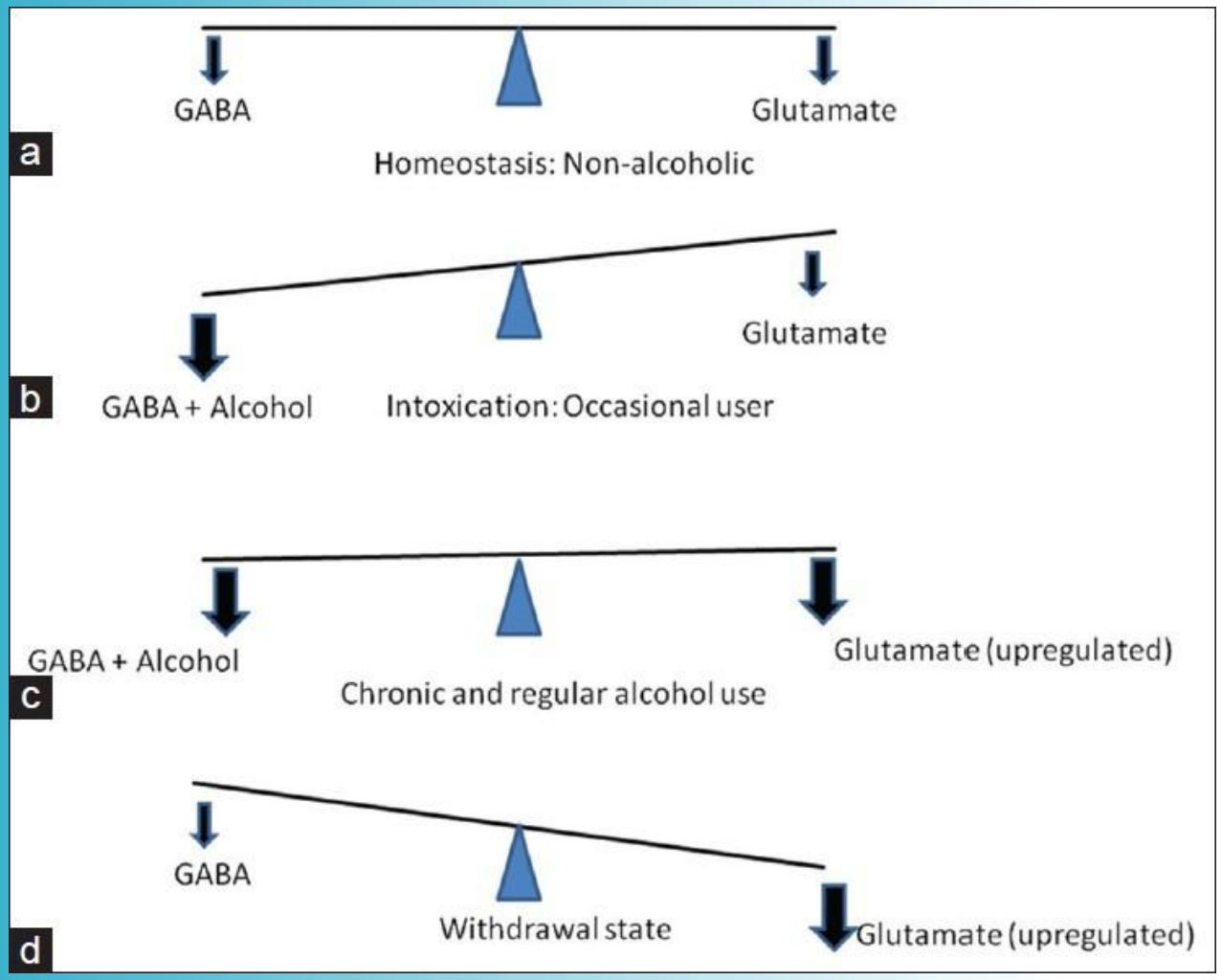
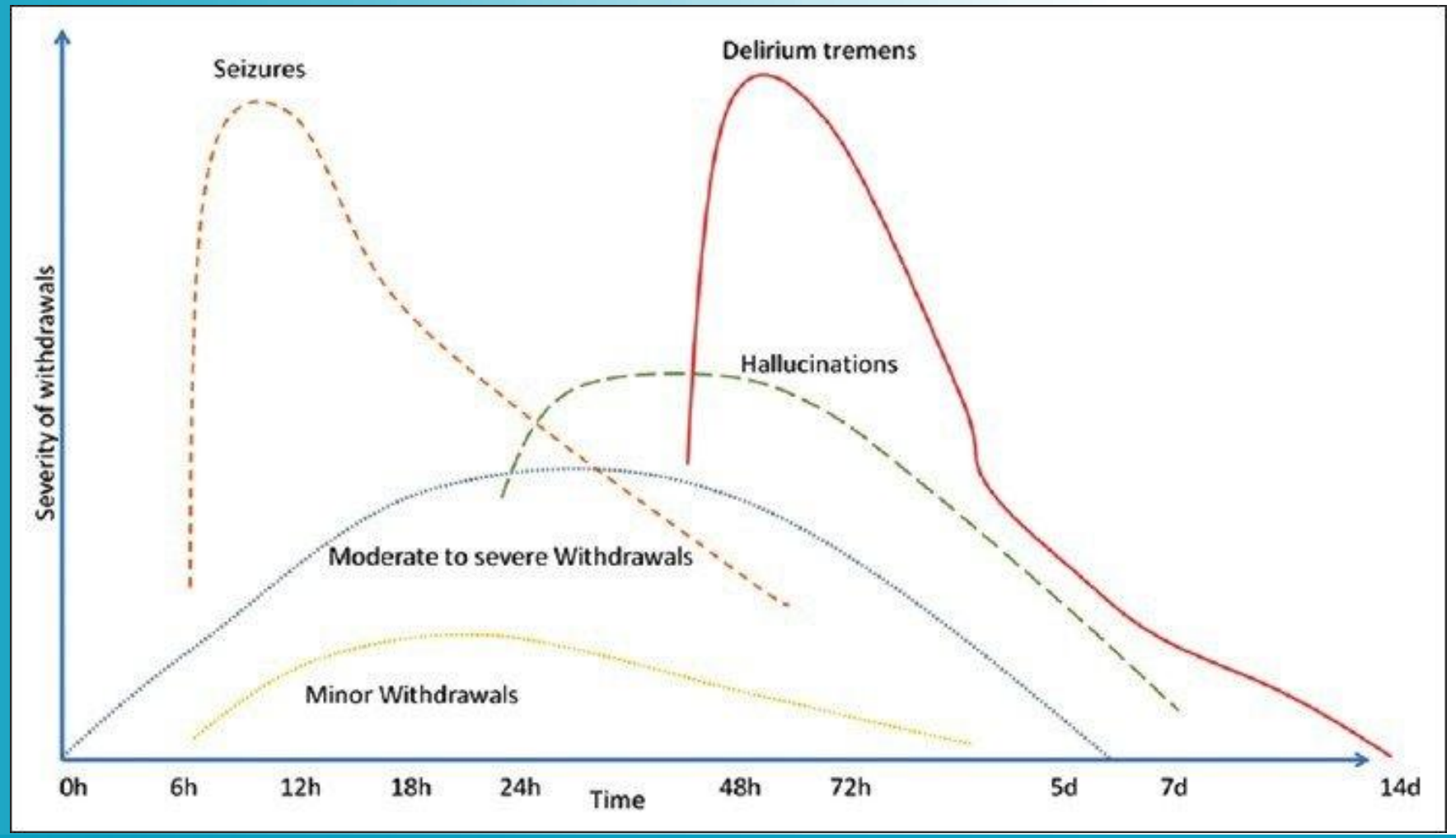
- Alcohol withdrawal syndrome encompasses a spectrum of symptoms that occurs when a patient who is physically dependent on alcohol either abruptly ceases or significantly decreases their alcohol intake

- The goal of alcohol withdrawal treatment is to prevent (or treat) severe complications such as withdrawal seizures or delirium tremens, **which can be fatal**

Neurobiology of AWS



AWS Symptom Timeline



A Case of AWS

- Your patient asks if their withdrawal can be managed at home. They don’t feel comfortable in hospital settings and have trouble sleeping adequately when inpatient

Determining appropriate setting

Outpatient ASAM levels of care for withdrawal management

- Level 1-WM = ambulatory withdrawal management without extended on-site monitoring (most office settings, some ambulatory treatment facilities)
- Level 2-WM = ambulatory withdrawal management with extended on-site monitoring (partial hospitalization, some ambulatory treatment facilities)

Determining appropriate setting

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Inpatient ASAM levels of care for withdrawal management

- Level 3.2-WM = clinically managed residential withdrawal management
- Level 3.7-WM = medically monitored inpatient withdrawal management
- Level 4-WM = medically managed inpatient withdrawal management

Determining appropriate setting

Risk Factor	Level 1-WM inappropriate	Level 2-WM inappropriate
CIWA score + complications	CIWA 19 + OR complications	Complications (seizure, hallucination, confusion)
Concurrent withdrawal	Benzodiazepine withdrawal	n/a
AWS history	Recent complicated withdrawal (<1 yr)	n/a
Recovery and environment	No transportation or housing, or unsupportive family/friends	No transportation or housing
Medical conditions + complications	Suspected head injury, inability to tolerate PO medications, chronic or acute condition that is potentially destabilizing	Inability to tolerate PO medications, chronic or acute condition that is potentially destabilizing
Emotional, behavioral or cognitive conditions + complications	Psychiatric symptoms or cognitive impairment, moderate to severe	Psychiatric symptoms or cognitive impairment, severe
Risk of harm	High risk of imminent relapse, commitment not high, imminent risk of harm – not cooperative or reliable	Imminent risk of harm – not cooperative or reliable
Other need	Med/psych condition needing inpt care	Med/psych condition needing inpt care

Other risks for outpatient AWS management

- Age
- Pregnancy
- Seizure history or epilepsy
- Clinically significant abnormal lab results
- Consuming >8 standard drinks per day
- Any medical or psychiatric condition that could complicate outpatient AWS management or is beyond the outpatient setting's ability to manage

Outpatient management of AWS

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- Patient should check in daily with a provider until symptoms resolved (up to 5 days). **Can alternate telemedicine visits with clinic visits, but in person visits are preferred**
- Providers should:
  - Educate patients about withdrawal, treatment expectations and signs for concern
  - Obtain objective data (check BAC) during visit if possible
  - Perform assessment of AWS during visit (CIWA scoring)
  - Review AWS trend since last visit (at follow ups)
  - Provide patients with initial dosing of treatment medications when appropriate based on exam, and monitor response when able
  - Offer supportive medications (thiamine and multivitamin)

Medications for ambulatory AWS

- Benzodiazepines are first line. Longer-acting preferred over shorter-acting, except in patients with history of cirrhosis
- Phenobarbital can be considered in a level 2-WM setting, NOT in a level 1-WM setting
- Gabapentin, carbamazepine and valproic acid may all be used as adjuncts to benzodiazepine treatment; gabapentin and carbamazepine can be monotherapy for mild AWS only

Medications for ambulatory AWS

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- Symptoms driven medication management by patient (with SAWS or CIWA-Ar after training) are appropriate when patients or their supports can reliably monitor symptoms and manage medications
- Front loading while in office and/or fixed dosing medication regimens are also appropriate for patients who can't manage symptom driven treatment, patients with a history of severe or complicated withdrawal, or patients being prescribed shorter-acting benzodiazepines
- For fixed dosing regimens, having a small amount of as needed symptom-triggered medications is recommended

Adjusting meds for ambulatory AWS

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- If inadequate response on day 1 (eg CIWA worsening or consistently >10)
  - first consider increasing benzodiazepines
  - Consider alternatives vs adjuncts
  - Consider what is appropriate level of care

Reasons to transfer to higher level of care

- Severe tremor or agitation not resolved despite multiple medication doses, and no further monitoring available
- Severe complications – confusion, hallucinations, seizure, persistent vomiting or severe agitation
- Patient returns to alcohol use
- Patient appears over-sedated
- Pre-existing medical/psychiatric condition worsens
- Unstable vital signs (low/high heart rate or blood pressure)
- Syncope

Inpatient management of AWS

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- Context – any recent hospitalizations for AWS within 2 weeks of presentation
- Nursing monitoring – CIWA every 1-4 hours (most often q4h on floor)
- Provider evaluation and monitoring – whenever clinically appropriate
- Supportive care
  - safety measures (telemetry, fall risk monitoring)
  - IV or IM thiamine preferred
  - Magnesium and potassium for patients with AWS seizure history or electrolyte abnormalities
  - Phosphorus only for patients with severe hypophosphatemia (<1mg/dL)
  - Folic acid and/or multivitamin

CIWA-AR

- **Nausea and Vomiting – ask and observe**
  - 1 – mild nausea, no vomiting
  - 4 – intermittent nausea, dry heaves
  - 7 – constant nausea, vomiting
- **Tremor – observe w/arms extended and fingers apart**
  - 1 – not visible, but can be felt fingertip to fingertip
  - 4 – moderate with arms extended
  - 7 – Severe, present without extension
- **Paroxysmal Sweats – observe**
  - 1 – barely perceptible, palms moist
  - 4 – beds of sweat on forehead
  - 7 – drenching sweats
- **Anxiety – ask and observe**
  - 1 – mild anxiety
  - 4 – moderately anxious, or guarding so anxiety is inferred
  - 7 – equivalent to acute panic states seen in severe delirium
- **Agitation – observe**
  - 1 – somewhat more than normal activity
  - 4 – Moderately fidgety and restless
  - 7 – Constantly pacing back and forth or thrashing in bed
- **Headache/fullness in head – ask. Do not rate for dizziness or lightheadedness**
  - 1 – very mild
  - 4 – moderately severe
  - 7 – extremely severe
- **Orientation/Sensorium Clouding – ask about day, who you are, who patient is, place**
  - 1 – Cannot do serial additions or uncertain about date
  - 2 – Disoriented by date no more than 2 calendar days
  - 4 – Disoriented to person/place
- **Tactile disturbances – ask and observe**
  - 1 – Very mild itching, burning, numbness, or pins & needles
  - 4 – Moderately severe hallucinations
  - 7 – Continuous hallucinations
- **Auditory disturbances – ask and observe**
  - 1 – Very mild harshness of ability to frighten
  - 4 – Moderately severe hallucinations
  - 7 – Continuous hallucinations
- **Visual disturbances – ask and observe**
  - 1 – Very mild sensitivity
  - 4 – Moderately severe hallucinations
  - 7 – Continuous hallucinations

Medications for inpatient AWS

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- Mild-moderate AWS medication regimens are similar to outpatient options – benzodiazepines are first line
  - Phenobarbital an option but not preferred for mild-moderate AWS
- Longer-acting benzodiazepines preferred over shorter-acting BZD for most patients, except in patients with cirrhosis or signs of liver failure (jaundice, ascites, dark urine, pale stool, etc)
- Symptom-triggered regimens preferred whenever possible
- For severe AWS (CIWA 19+) or high risk of severe AWS, utilize front-loaded long-acting benzodiazepines
- For severe AWS, Phenobarbital can be used as an adjunct or as monotherapy

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Phenobarbital for inpatient AWS at MGH

- In ED or ICU at MGH, phenobarbital often loaded 10mg/kg IV
- On wards at MGH, initial loading dose in mg/kg is broken up into thirds and given every 3 hours (can be IV or IM), to allow for monitoring of the patient's response to PHB and reduce risk of oversedation. Initial loading dose generally 8-12mg/kg
- In either setting after finishing the initial loading dose, PHB 2mg/kg IV/IM/PO is given only for persistence of the following objective withdrawal symptoms:
  - **Coarse tremor AND at least one the following: diaphoresis, HR>115, or SBP>165**
- The patient should NOT receive further phenobarbital for high CIWA scores without objective withdrawal symptoms
- After 16mg/kg total PHB is given, if still considering further PHB, consider drawing a PHB level first. Goal is level of ~15mg/dL, if level above 20 would seek other tx
- **No patient on inpatient floors should require >20mg/kg PHB**

Adjuncts for inpatient AWS

- Gabapentin, carbamazepine and valproic acid may all be used as adjuncts to benzodiazepines
- Alpha2-adrenegic agonists (clonidine, dexmedetomidine) and beta-adrenergic antagonists (propranolol or others) can be used as adjuncts for benzodiazepines
- Phenobarbital and benzodiazepines can be used as adjuncts for one another

Prolonged CIWA scoring inpatient

- Once 72 hours of hospital time has passed, if patient continues to score on CIWA to the point of triggering benzodiazepine medications, consider strategies to limit inappropriate use (fixed taper schedule or providing medication for objective signs of AWS only)
- For patients with AWS complicated by delirium, if treating with benzodiazepines for >72 hours, assess for drug-induced delirium and withdrawal rather than assuming ongoing AWS related delirium
- Context clues may warrant utilization of these strategies earlier in hospitalization (eg if patient recently treated for AWS within 2 weeks time)

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Thank You!

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