Outpatient Treatment of Alcohol Withdrawal

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DSM V criteria for Alcohol Withdrawal

- A. Cessation or reduction of heavy/prolonged alcohol use
- B. 2 or more of the following in hours to days of A:

    1. Autonomic hyperactivity (increased heart rate, blood pressure, sweating, etc.)
    2. Increased tremor
    3. Insomnia
    4. Nausea or vomiting
    5. Transient visual, tactile, or auditory hallucinations or illusions
    6. Psychomotor agitation
    7. Anxiety
    8. Grand mal seizures

DSM V, American Psychiatric Association, 2013

Alcohol Withdrawal

- B.A.L. changes +/- 0.02 mg/dL per drink, per hour
- Withdrawal RELIABLY occurs in this order:

Time since last drink	Symptom
0 - 24 Hours	Autonomic Dysregulation
24 - 48 Hours	Seizure
48 - 72 Hours	Delirium Tremens
	Death

Intervene Early

Inpatient vs. Outpatient

Very little evidence to guide clinicians in who to select for outpatient treatment of alcohol withdrawal, and what to use to treat them with

Uncomplicated vs. Complicated Withdrawal

- **Uncomplicated**: Usually not life threatening

  diaphoresis, tremor, hypertension, anxiety, tachycardia

- **Complicated**: Life threatening

  withdrawal seizures, delirium tremens, Werinke-Korsakoff Syndrome

Complicated Withdrawal

Part 1

- **Withdrawal Seizure**: tonic-clonic seizure (full body symmetric convulsions with limited/lost consciousness)

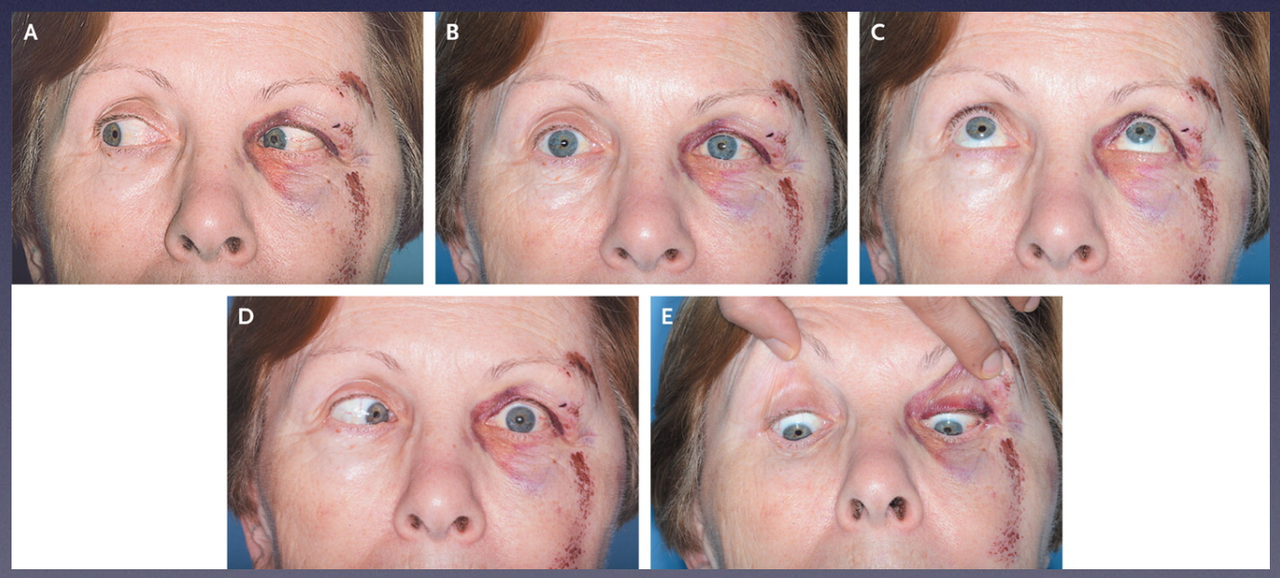
- **Delirium Tremens**: delirium (can't stay awake, disoriented, confused, hallucinating)

Complicated Withdrawal

Part 2

- **Wernike-Korsakoff Syndrome**:

1. Wernike Encephalopathy: can't move eyes to outside (usually bilateral), ataxia (can't keep balance or coordinate muscles), confusion, weakness



Abducens Nerve Palsy

NEJM, 2012;367:e5

2. Korsakoff Psychosis: anterograde & retrograde amnesia (can't make new memories or recall past memories), confabulation (makes up new memories without knowing it)

Predictors of complicated withdrawal

- Medical illness
- Recent surgery
- Older age
- History of complicated withdrawal
- History of seizures
- Elevated liver enzymes
- High blood alcohol at start of withdrawal
- Longer duration of alcohol misuse (75% with 6 years of use)
- Presence of alcohol associated gastrointestinal illness

Saitz & O'Malley, Medical Clinics of North America, 1997;81(4):881-907

Withdrawal Severity

- **CIWA-Ar**
- Mild: < 10
- Moderate: 11-15
- Severe: > 15

Sullivan, et al. British Journal of Addiction, 1989;84:1353-1357

Clinical Insitutue Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar)

Patient:_____ Date: _____ Time: _____ (24 hour clock, midnight = 00:00)

Pulse or heart rate, taken for one minute:_____ Blood pressure:_____

NAUSEA AND VOMITING — Ask "Do you feel sick to your stomach? Have you vomited?" Observation.
0 no nausea and no vomiting
1 mild nausea with no vomiting
2
3
4 intermittent nausea with dry heaves
5
6
7 constant nausea, frequent dry heaves and vomiting

TACTILE DISTURBANCES — Ask "Have you any itching, pins and needles sensations, any burning, any numbness, or do you feel bugs crawling on or under your skin?" Observation.
0 none
1 very mild itching, pins and needles, burning or numbness
2 mild itching, pins and needles, burning or numbness
3 moderate itching, pins and needles, burning ornumbness
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

TREMOR — Arms extended and fingers spread apart. Observation.
0 no tremor
1 not visible, but can be felt fingertip to fingertip
2
3
4 moderate, with patient's arms extended
5
6
7 severe, even with arms not extended

AUDITORY DISTURBANCES — Ask "Are you more aware of sounds around you? Are they harsh? Do they frighten you? Are you hearing anything that is disturbing to you? Are you hearing things you know are not there?" Observation.
0 not present
1 very mild harshness or ability to frighten
2 mild harshness or ability to frighten
3 moderate harshness or ability to frighten
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

PAROXYSMAL SWEATS — Observation.
0 no sweat visible
1 barely perceptible sweating, palms moist
2
3
4 beads of sweat obvious on forehead
5
6
7 drenching sweats

VISUAL DISTURBANCES — Ask "Does the light appear to be too bright? Is its color different? Does it hurt your eyes? Are you seeing anything that is disturbing to you? Are you seeing things you know are not there?" Observation.
0 not present
1 very mild sensitivity
2 mild sensitivity
3 moderate sensitivity
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

ANXIETY — Ask "Do you feel nervous?" Observation.
0 no anxiety, at ease
1 mild anxious
2
3
4 moderately anxious, or guarded, so anxiety is inferred
5
6
7 equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions

HEADACHE, FULLNESS IN HEAD — Ask "Does your head feel different? Does it feel like there is a band around your head?" Do not rate for dizziness or lightheadedness. Otherwise, rate severity.
0 no present
1 very mild
2 mild
3 moderate
4 moderately severe
5 severe
6 very severe
7 extremely severe

AGITATION — Observation.
0 normal activity
1 somewhat more than normal activity
2
3
4 moderately fidgety and restless
5
6
7 paces back and forth during most of the interview, or constantly thrashes about

ORIENTATION AND CLOUDING OF SENSORIUM — Ask "What day is this? Where are you? Who am I?"
0 oriented and can do serial additions
1 cannot do serial additions or is uncertain about date
2 disoriented for date by no more than 2 calendar days
3 disoriented for date by more than 2 calendar days
4 disoriented for place/or person

Sullivan, J.T.; Sykora, K.; Schneiderman, J.; Naranjo, C.A.; and Sellers, E.M. Assessment of alcohol withdrawal: The revised Clinical Institute Withdrawal Assessment for Alcohol scale (CIWA-Ar). *British Journal of Addiction* 84:1353-1357, 1989.

Patients scoring less than 10 do not usually need additional medication for withdrawal.

Total CIWA-Ar Score _____
Rater's Initials _____
Maximum Possible Score 67

Withdrawal Severity

- CIWA-Ar < 8-10 (mild): can be monitored outpatient and may not require medications
- CIWA-Ar 8-15 (moderate): may require medications and may be monitored outpatient
- CIWA-Ar > 15 or a history of complicated withdrawal, active suicidal ideation, unstable medical conditions: NOT eligible for outpatient treatment

Ricks, et al. American Family Physician, 2010;82(4):344-347

What to use?

- **Benzodiazepines**: historically, the gold standard treatment, based on cross-tolerance with the GABA-a receptor. Reduces withdrawal severity and reduces chance of seizures and DTs. Long-acting benzodiazepines are preferable (I.e. NOT alprazolam).

- **Thiamine**: Werkicke-Korsakoff Syndrome results from a lack of thiamine. Does not reduce withdrawal or prevent seizures.

- **Carbamazepine**: can prevent seizures, reduce withdrawal severity. Does not prevent DTs.

- **Clonidine**: can decrease sympathetic tone (reduces blood pressure, heart rate, anxiety).

- **Gabapentin + clonidine**: a new alternative to benzodiazepine treatment. Studies not yet published.

Inpatient vs. Outpatient

- Relative indications for inpatient alcohol detoxification

  A. History of complicated withdrawal

  B. Lack of reliable support network

  C. Multiple past alcohol detoxifications

  D. Recent high level of alcohol consumption

  E. Pregnancy

  F. Severe withdrawal (CIWA-Ar > 15)

Myrick & Anton, Alcohol health and research world, 1998;22(1):38-43

One example of an alcohol withdrawal treatment protocol for benzodiazepine dosing in the outpatient setting.

Note: benzodiazepines have a high abuse potential, and can be lethal if combined with alcohol. Optimal treatment should include a family member to dispense medications and frequent (e.g. Daily) contact.

Muncie, et al. American Family Physician, 2013;88(9):589-595

Table 4. Fixed and Symptom-Triggered Dosing for Oral Alcohol Withdrawal Medications

Medication	*Fixed schedule*	*Symptom-triggered schedule**
Day 1		
Diazepam (Valium)	10 mg every 6 hours	10 mg every 4 hours
Chlordiazepoxide (Librium)	25 to 50 mg every 6 hours	25 to 50 mg every 4 hours
Lorazepam (Ativan)	2 mg every 8 hours	2 mg every 6 hours
Day 2		
Diazepam	10 mg every 8 hours	10 mg every 6 hours
Chlordiazepoxide	25 to 50 mg every 8 hours	25 to 50 mg every 6 hours
Lorazepam	2 mg every 8 hours	2 mg every 6 hours
Day 3		
Diazepam	10 mg every 12 hours	10 mg every 6 hours
Chlordiazepoxide	25 to 50 mg every 12 hours	25 to 50 mg every 6 hours
Lorazepam	1 mg every 8 hours	1 mg every 8 hours
Day 4		
Diazepam	10 mg at bedtime	10 mg every 12 hours
Chlordiazepoxide	25 to 50 mg at bedtime	25 to 50 mg every 12 hours
Lorazepam	1 mg every 12 hours	1 mg every 12 hours
Day 5		
Diazepam	10 mg at bedtime	10 mg every 12 hours
Chlordiazepoxide	25 to 50 mg at bedtime	25 to 50 mg every 6 hours
Lorazepam	1 mg at bedtime	1 mg every 12 hours

**—For patients with a SAWS (Short Alcohol Withdrawal Scale) score ≥ 12, or CIWA-Ar (Clinical Institute Withdrawal Assessment for Alcohol, Revised) score > 9.*

Carbamazepine

- Equal efficacy with oxazepam and lorazepam in outpatient double-blind trials in reducing withdrawal symptoms

Day	Dose schedule A	Dose schedule B
1	800mg	200mg QID
2	700mg	200mg QID
3	600mg	200mg TID
4	500mg	200mg TID
5	400mg	200mg BID
6	300mg	200mg BID
7	200mg	200mg

Malcolm, et al. American Journal of Psychiatry, 1989;146:617-621

Malcolm, et al. Journal of General Internal Medicine, 2002;17:349-355

Gabapentin + Clonidine

- Clonidine: place 2x 0.1mg patches, and give 0.1mg po q8h for 1st 24 hours, while patch kicks in. Remove patches after 1 week.
- Gabapentin: 900mg TID for 1 week.

This is a protocol from Dr. Jose Maldonado, Psychiatrist at Stanford University who specializes in the treatment of delirium. Studies are in process, but not yet published.

Questions?