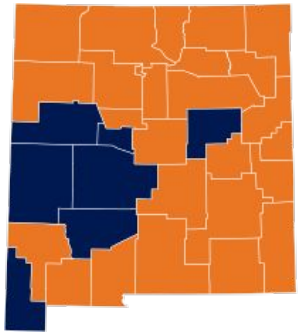
Opioid Remediation Collaborative (ORC)

of New Mexico



7 COUNTY STRATEGIES

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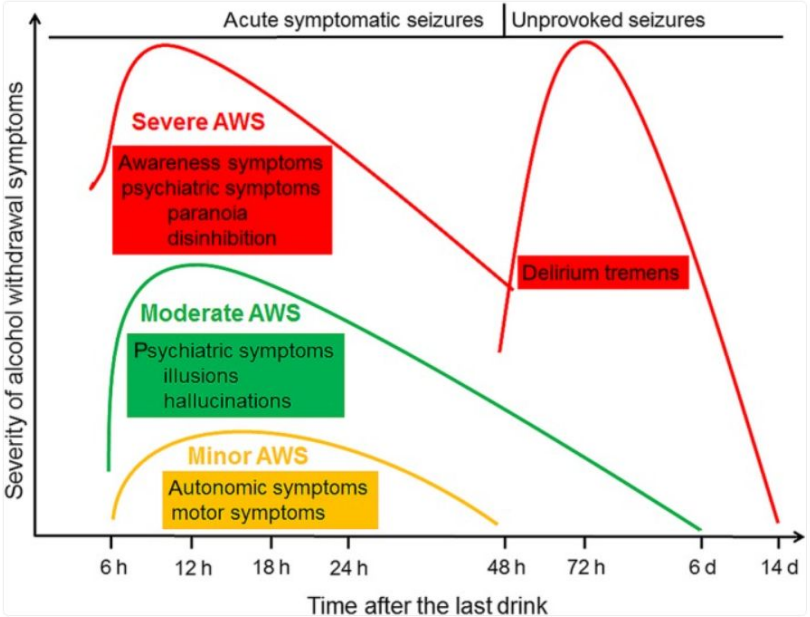
Management of Alcohol Withdrawal

Key Clinical Features of Alcohol Withdrawal

- Nausea/Vomiting
- Tactile Disturbance
- Auditory Disturbance
- Tremor
- Sweats
- Visual Disturbance
- Anxiety
- Headache
- Agitation
- Orientation



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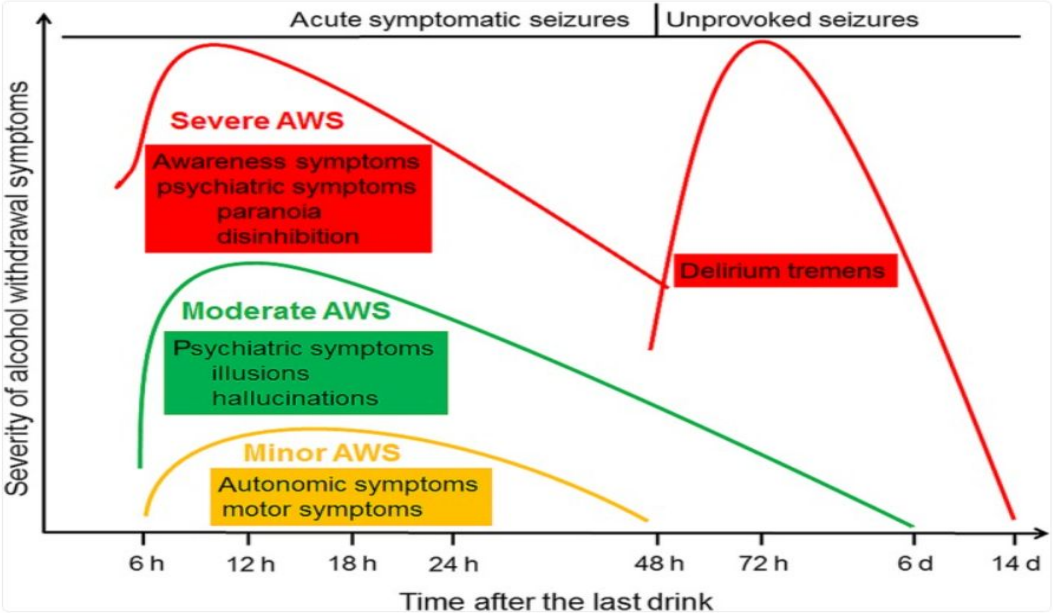
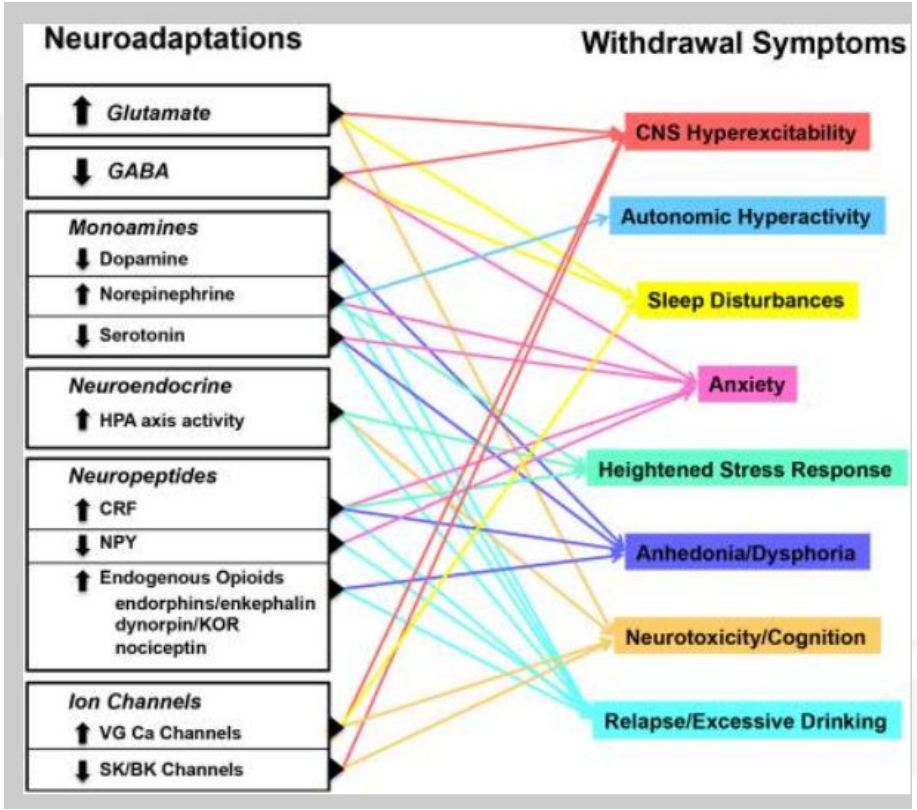
Timing of Withdrawal Symptoms



Neural mechanisms driving withdrawal



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Scoring Alcohol Withdrawal

CIWA-AR components

Nausea/Vomiting
Tactile Disturbance
Auditory Disturbance
Tremor
Sweats
Visual Disturbance
Anxiety
Headache
Agitation
Orientation

Scores:

All items on a 0-7 scale except orientation (AAO x 4).

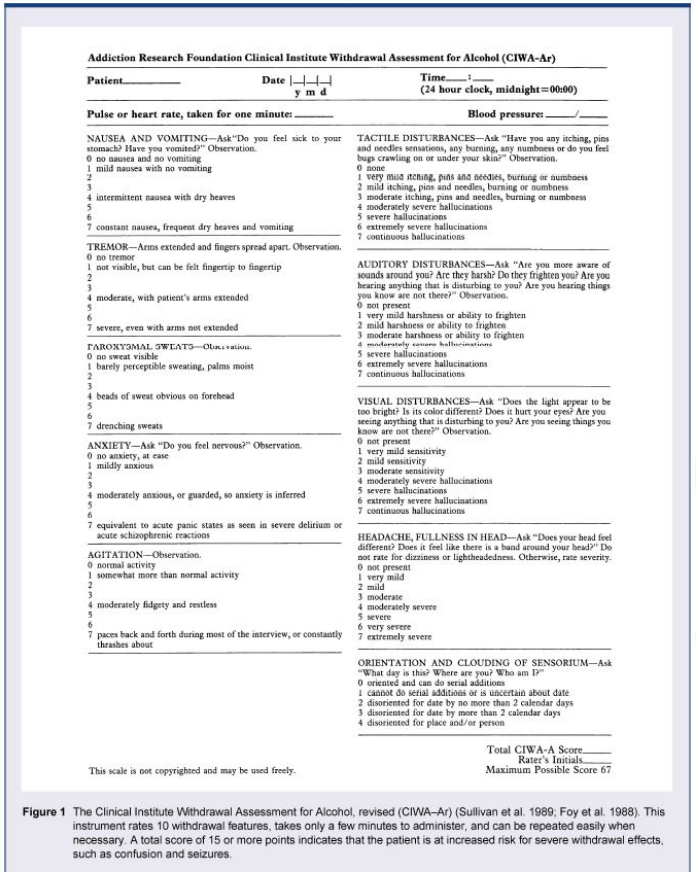
Scores: ≤ 9 = mild w/d

10-18 moderate

> 18 severe

CIWA Scoring Sheet

https://pmc.ncbi.nlm.nih.gov/articles/PMC6761824/#sec2



Addiction Research Foundation Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar)

Patient_____ Date |_|_|_| y m d 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

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

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

ANXIETY—Ask "Do you feel nervous?" Observation.
0 no anxiety, at ease
1 mildly 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

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

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 or numbness
4 moderately severe hallucinations
5 severe hallucinations
6 extremely severe hallucinations
7 continuous hallucinations

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

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

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 not present
1 very mild
2 mild
3 moderate
4 moderately severe
5 severe
6 very severe
7 extremely severe

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 and/or person

Total CIWA-A Score_____
Rater's Initials_____
Maximum Possible Score 67

This scale is not copyrighted and may be used freely.

Figure 1 The Clinical Institute Withdrawal Assessment for Alcohol, revised (CIWA–Ar) (Sullivan et al. 1989; Foy et al. 1988). This instrument rates 10 withdrawal features, takes only a few minutes to administer, and can be repeated easily when necessary. A total score of 15 or more points indicates that the patient is at increased risk for severe withdrawal effects, such as confusion and seizures.

Sample Withdrawal Treatment Protocols

Examples of Specific Regimens Used in the Treatment of Alcohol Withdrawal

Treatment Approach	Treatment Component
Monitoring	• Monitor the patient by administering the CIWA–Ar[1] test every 4 to 8 hours until the score has been lower than 8 to 10 points for 24 hours • Use additional assessments as needed
Symptom-triggered regimens	• Perform the CIWA–Ar every hour to assess the patient's need for medication • Administer one of the following medications every hour when the CIWA–Ar score is at least 8 to 10 points: —Chlordiazepoxide (50–100 milligrams [mg]) —Diazepam (10–20 mg) —Lorazepam (2–4 mg)
Fixed-schedule regimens	• Administer one of the following medications every 6 hours: —Chlordiazepoxide (4 doses of 50 mg, then 8 doses of 25 mg) —Diazepam (4 doses of 10 mg, then 8 doses of 5 mg) —Lorazepam (4 doses of 2 mg, then 8 doses of 1 mg) • Provide additional medication if these regimens do not control the symptoms (i.e., the CIWA–Ar score remains at least 8 to 10 points)

[1]CIWA–Ar = Clinical Institute Withdrawal Assessment for Alcohol, revised. For further information see figure 1.
SOURCE: Mayo-Smith 1997.

https://pmc.ncbi.nlm.nih.gov/articles/PMC6761824/#sec2

Complications in Alcohol Withdrawal

- Gastritis (i.e., an inflammation of the stomach lining, which often is associated with bleeding)
- Gastrointestinal bleeding (e.g., from the esophagus, stomach, or intestines)
- Liver disease
- Acute alcoholic hepatitis (transaminitis)
- Chronic fatty liver, progressing to cirrhosis
- Cardiomyopathy (i.e., any disorder of the heart muscle)
- Pancreatitis (i.e., an inflammation of the pancreas)
- Disturbances in the electrolyte balance (e.g., alcohol ketoacidosis—a metabolic derangement that results in too much acid in the bloodstream—and abnormally low levels of magnesium in the blood)
- Deficiency of the vitamin folate, which can cause lower-than-normal numbers of blood cells
- Deficiency of the vitamin thiamine, which can lead to serious neurological problems, such as Wernicke's encephalopathy (accordingly, thiamine should be administered to all patients undergoing AW to prevent the development of this syndrome).

Withdrawal Seizure Management

Withdrawal seizures present a special problem in alcohol withdrawal management.

They are not the same as seizures caused by pre-existing epilepsy or seizures after traumatic brain injury(TBI). These types are best managed acutely and chronically with medications like dilantin, levetiracetem.

Alcohol withdrawal seizures in naive patients are best prevented by the existing benzodiazepine-based withdrawal protocols.

Patients with a history of prior alcohol withdrawal seizures are best protected by a combination of the existing benzodiazepine-based withdrawal protocols, with the addition of supplemental phenobarbital dosing, with strict parameters regarding dose and frequency adjustments to avoid prolonged sedation and respiratory depression.

Predictors of Increased Withdrawal Seizure Risk

Older age
Comorbid medical or surgical illness
Past history of DT or alcohol withdrawal seizure
Severe withdrawal symptoms at initial assessment, despite having significant blood alcohol levels
Presence of dehydration
History of having had withdrawal seizure during this current withdrawal state before the assessment
Presence of hyponatremia or hypokalemia
Elevated AST or GGT levels
Low platelet count
The presence of structural brain lesions
Duration of alcohol use and average daily quantity of alcohol consumed are not consistent predictors of severe alcohol withdrawal

AST – Aspartate aminotransferase; GGT – Gamma glutamyl transferase;
DT – Delirium tremens

https://pmc.ncbi.nlm.nih.gov/articles/PMC4085800/

Practical Management of Alcohol Withdrawal

- Staff training on disease and strict adherence to protocols
  - Dedicated and consistent staffing is best
- Uniform use of CIWA scale
  - CIWA is objective scoring based, not “opinion based”
- Co-management of complications (gastritis, nausea, electrolytes, etc.)
  - Scheduled thiamine, folate and PRN antiemetics, anxiolytics, sleep aids
- Avoidance of premature discontinuation of protocols (risk of delayed symptoms
  - *Just because they are looking and feeling better does not mean they really are*
- Always be prepared to escalate care to a higher level of care if patient is not responding to standard protocols and interventions

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