

Practical Review of Alcohol Withdrawal Management During The Coronavirus Pandemic

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Webinar Objectives

At the conclusion of this webinar, participants should be able to:

- Review the manifestations of alcohol withdrawal syndrome (AWS)
- Screen for and evaluate the severity of AWS
- Identify candidates for outpatient vs. inpatient treatment
- Understand and implement alcohol withdrawal management (AWM) medication protocols in an outpatient setting via telehealth
- Review the PA State referral process for management of AWS

Epidemiology of Alcohol Withdrawal

- Not well studied
- Significant symptoms occur in 13% to 71% of individuals presenting for withdrawal management
- Up to 10% of individuals undergoing alcohol withdrawal require inpatient medical treatment
- Estimated mortality up to 2%

Manifestations of AWS



CNS excitation

Restlessness
Agitation
Anxiety
Seizures



Excessive function of autonomic nervous system

Nausea/Vomiting
Tremors
Sweats
Tachycardia
Hypertension



Cognitive dysfunction

Mild/Moderate
Disorientation

Delirium
Tremens

Blondell RD. Ambulatory detoxification of patients with alcohol dependence. *American Family Physician*. 2005; 71(vol 3): 495-502.

Goals of AWS Treatment

- Control symptoms and discomfort
- Prevent withdrawal seizure, delirium tremens, and death
- Engage in ongoing psychosocial treatment to promote long-term recovery

Predicting Withdrawal Severity is Difficult

- Variability between patients and with a given patient
- Withdrawal syndrome evolves rapidly
- Balance the importance of staying ahead of symptoms with avoiding over-medicating

Screening for AWS

The following screening questions determine:

- Who might be *at risk for developing AWS*
 - Identify those who are at high risk if they abruptly stop alcohol use
 - In such cases, where high risk is established, treatment is necessary
- Any use of alcohol by a pregnant woman is dangerous due to the potential risks to the fetus, with > risk of premature labor in the 3rd trimester
 - Formal alcohol withdrawal management (AWM) should be a priority

Screening Questions for AWS Risk

How often do you drink alcohol?

- Everyday
- 2-3 times/week

How much do you drink per occasion?

- Heavy alcohol use is considered 8+drinks/week for women;
- 15+ drinks/week for men (CDC)

How long have you been drinking alcohol in this quantity/frequency?

2 weeks – 1 mo. = high risk

Steady, heavy drinking increases risk especially for those ≥ 65 yo

When did you last drink alcohol?

Onset of mild AWS begins 6-12 hrs. after last use with moderate to severe AWS occurring 12-24 hrs. and thereafter.

Do you currently take other medications/drugs?

Benzos/barbiturates = high risk; medications can be an indicator of coexisting medical conditions that increase risk.

Have you ever experienced any of the following symptoms after stopping drinking alcohol?

- Delirium tremens, confusion, hallucinations
- Seizures

Current shakes and sweats, accompanied by history of the above = high risk

Do you currently have any of the following medical conditions?

- Seizure disorder
- High blood pressure
- Cardiac complications
- Liver/cirrhosis

Females:

Are you currently pregnant or possibly pregnant? Prioritize treatment

Screening Questions for Active AWS

Are you currently experiencing any of the following symptoms?

- Anxiety
- Increased hand tremor;
- Insomnia;
- Nausea/Vomiting;
- +Sweating, Rapid heartbeat;
- +Fever (>100.4F)
- +Transient visual, tactile, auditory hallucinations or illusions/Confusion;
- +Psychomotor agitation; Severe anxiety;
- Seizures

Mild withdrawal – symptoms noted referral to ambulatory/traditional AWM if available; Advice individuals from not stopping alcohol abruptly without a contingency plan

Moderate withdrawal – mild symptoms + symptoms noted referral to ambulatory/traditional AWM if available; Advice individuals from not stopping alcohol abruptly without a contingency plan

Severe withdrawal – all previously symptoms + symptoms noted referral to inpatient AWM if available; refer to ED; Advice individuals from not stopping alcohol abruptly without a contingency plan

Another Tool for Screening for Severity of AWS

Prediction of Alcohol Withdrawal Severity Scale (PAWSS)

Maldonado et al., 2014

Part A: Threshold Criteria:

(1 point each)

1. Has you consumed any amount of alcohol (i.e., been drinking) within the last 30 days;

OR did the patient have a "+" BAL upon admission? _____

IF the answer to either is YES, proceed with test:

Part B: Based on patient interview:

(1 point each)

2. Have you ever experienced previous episodes of alcohol withdrawal _____

3. Have you ever experienced alcohol withdrawal seizures _____

4. Have you ever experienced delirium tremens or DT's _____

5. Have you ever undergone of alcohol rehabilitation treatment? _____

(i.e., in-patient or out-patient treatment programs or AA attendance)

6. Have you ever experienced blackouts? _____

7. Have you combined alcohol with other "downers" like benzodiazepines or barbiturates over the last 90 days? _____

8. Have you combined alcohol with any other substance of abuse over the last 90 days? _____

Part C: Based on clinical evidence:

(1 point each)

9. Was the patient's Blood alcohol level (BAL) on presentation >200 _____

10. Is there evidence of increased autonomic activity _____

(e.g., HR > 120bpm, tremor, sweating, agitation, nausea) _____

Total Score: _____

Notes: Maximum score = 10. This instrument is intended as a SCREENING TOOL. The greater the number of positive findings, the higher the risk for the development of alcohol withdrawal syndromes. A score of ≥ 4 suggests HIGH RISK for moderate to severe AWS; prophylaxis and/or treatment may be indicated.

The Bottom Line: Risk Rating and Care Level

Risk Rating	Symptoms	Level of Care
1. Mild	Mild anxiety, sweating, insomnia	Office-Based
2. Moderate	Moderate anxiety, fine tremor	Office or Program-Based
3. Significant	Significant anxiety, gross tremor	Program-Based or Inpatient
4. Severe	Clouded sensorium, visual hallucinations, seizure	Inpatient

Two Outpatient Settings

- Office-Based
 - ASAM Level 1-WM: Ambulatory Withdrawal Management without Extended On-Site Monitoring
- Structured Program-Based
 - ASAM Level 2-WM: Ambulatory Withdrawal Management with Extended On-Site Monitoring

Why Outpatient?

- Increased likelihood, compared to inpatient withdrawal management, that patients will continue in long term follow up treatment for their alcohol use disorder

Contrasting Acceptance: IOP Versus Outpatient AWM

- IOP has become widely established as a mainstream level of care for the treatment of substance use disorders as well as other diagnostic groups
- Outpatient AWM is still under-available
 - Despite being a well-established procedure for mild to moderate severity
 - 1975: American Journal of Psychiatry article
 - Entrenched resistance regarding higher severity end of the spectrum

Alcohol Withdrawal Management Protocols

- Standard Symptom Triggered Benzodiazepine
- Other protocols
- Alternative Non-Benzodiazepine
- Hybrid of Standard and Alternative

Use Long-Acting Benzodiazepines

- chlordiazepoxide (Librium) 50 mg = diazepam (Valium) 20 mg
- Can be used even if liver enzymes are moderately elevated
- Preferred medication is chlordiazepoxide

Why to Avoid Shorter Acting Agents, e.g. Lorazepam

- Less reduction of agitation
- When tapering, multiple daily doses are necessary
- Rebound withdrawal symptoms
 - Relapses back to alcohol are triggered
- Use only when patient has severe liver dysfunction
- Switch to longer acting as soon as possible

Symptom Triggered Chlordiazepoxide Taper

- **First day**: 50 mg hourly until withdrawal discomfort is 0 to 1 (usually 50 to 300 mg)
- **First night**: 50 mg at bedtime
 - Repeat hourly x 2 until asleep
- **Second day**: 50 mg x 1 – 2 in A.M.
- **Second night**: 50 mg at bedtime
 - Repeat in one hour if not asleep
- **Third night**: 50 mg at bedtime if needed

Other Suggested Protocols

Chlordiazepoxide

50mg every 6 hours x 4 doses (day 1), then
25mg every 6 hours x 4 doses (day 2), then
25mg every 8 hours x 3 doses (day 3), then
25mg every 12 hours x 2 doses (day 4), then
25mg once a day x 1 dose (day 5) then stop
altogether

Lorazepam

(Use if LFTs elevated, elderly; h/o delirium,
dementia, cognitive disorder)

2mg every 6 hours x 4 doses (day 1), then
2mg every 8 hours x 3 doses (day 2), then
2mg every 12 hours x 2 doses (day 3), then
1mg every 12 hours x 2 doses (day 4), then
0.5mg every 12 hours x 2 doses (day 5) then
stop altogether

Chlordiazepoxide

25mg every 4 hours x 6 doses (day 1)
25mg every 6 hours x 4 doses (day 2)
25mg every 8 hours x 3 doses (day 3)
25mg every 12 hours x 2 doses (day 4)
25mg every 24 hours x 1 dose (day 5)
*sometimes higher dosing needed, i.e.
50mg every 4 to 6 hours to start

Regimen utilized at our CPCDS clinic
(courtesy Dr. Kmiec)

Why Avoid Benzodiazepines Entirely?

- Addictive potential
- Using GABA agent in a down-regulated system requires very large doses
- Motor impairment, ataxia
- Sedation and cognitive changes interfere with psychosocial interventions
- Potential for delirium
- Limited effectiveness for delirium tremens

Alternative Agent: Anticonvulsants

- Options: gabapentin, carbamazepine, valproate
- Act on hyperactive glutamatergic system
- Effective for mild to moderate withdrawal severity
- Useful for extended use to reduce post-acute withdrawal symptoms
- Problem: not adequate alone for severe withdrawal
 - Solution: add alpha-2 agonist (clonidine, guanfacine)

Gabapentin

- FDA-approved as adjunct agent for partial seizures, post-herpetic neuralgia, & diabetic neuropathy
- Structurally similar to GABA
- Does not induce hepatic metabolism
- Excreted unchanged in urine
- Mild side effect profile
- No cognitive impairment
- Minimal abuse potential

Other Suggested Protocols

Carbamazepine (Tegretol) (check baseline LFT, CBC if possible)

- 200mg every 6 hours x 8 doses (day 1,2), then
- 200mg every 8 hours x 3 doses (day 3), then
- 200mg every 12 hours x 2 doses (day 4), then
- 200mg once a day x 1 dose (day 5) then stop altogether

Gabapentin (Neurontin)

- 300 mg or 400 mg TID x 2days
- 300 or 400 mg BID x2 days
- 300 or 400 mg daily x 2days
- Supplement as needed

Hybrid Protocol

- Day 1: Symptom triggered chlordiazepoxide protocol
- Day 2: taper chlordiazepoxide to 50 mg AM and HS
- Day 3 and after: Gabapentin 300 mg Q.I.D.
 - Adjust dose up or down as needed
 - Maintain for 6 or more months
- Add alpha-2 adrenergic agonist on Day 1 to 3 if history of hallucinations
 - Guanfacine 2 to 3 mg/day

Other Medications

- Thiamine 100 mg daily (30 days)
- Folic acid 1 mg daily (30 days)
- Ibuprofen 600 mg every 8 hours PRN for pain/discomfort (7 days)
- Hydroxyzine 50 mg every 6 hours PRN anxiety/insomnia (7days)
- Trazadone 50-100 mg qhs PRN insomnia (14 days)
- Promethazine 12.5/25 mg TID PRN for nausea x 2 days (2 days)

Tracking Treatment Progress

- CIWA-Ar (Clinical Institute Withdrawal Assessment for Alcohol–Revised)
 - Most commonly used but many alternatives
 - Does not rely on vitals
 - Routinely mis-applied to level of care decisions
 - The problem with scores >15
- Anxiety and restlessness are the best parameter
- Tendency of clinicians to overly focus on elevated blood pressure, which can be caused by chronic heavy alcohol intake and takes weeks or months to decline

Evaluation of Severity of AWS

- CIWA Revised (CIWA-Ar)
 - < 8 Mild withdrawal
 - 8-15 Moderate withdrawal
 - >15 Severe withdrawal
- Monitoring response to treatment
 - If > 8 on CIWA, monitor daily
 - With no complications, symptoms usually resolve in 4-5 days

Blondell RD. Ambulatory detoxification of patients with alcohol dependence. *American Family Physician*. 2005; 71(vol 3): 495-502.

Clinical Institute 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: _____

<p>NAUSEA AND VOMITING -- Ask "Do you feel sick to your stomach? Have you vomited?" Observation.</p> <p>0 no nausea and no vomiting</p> <p>1 mild nausea with no vomiting</p> <p>2</p> <p>3</p> <p>4 intermittent nausea with dry heaves</p> <p>5</p> <p>6</p> <p>7 constant nausea, frequent dry heaves and vomiting</p>	<p>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.</p> <p>0 none</p> <p>1 very mild itching, pins and needles, burning or numbness</p> <p>2 mild itching, pins and needles, burning or numbness</p> <p>3 moderate itching, pins and needles, burning or numbness</p> <p>4 moderately severe hallucinations</p> <p>5 severe hallucinations</p> <p>6 extremely severe hallucinations</p> <p>7 continuous hallucinations</p>
<p>TREMOR -- Arms extended and fingers spread apart. Observation.</p> <p>0 no tremor</p> <p>1 not visible, but can be felt fingertip to fingertip</p> <p>2</p> <p>3</p> <p>4 moderate, with patient's arms extended</p> <p>5</p> <p>6</p> <p>7 severe, even with arms not extended</p>	<p>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.</p> <p>0 not present</p> <p>1 very mild harshness or ability to frighten</p> <p>2 mild harshness or ability to frighten</p> <p>3 moderate harshness or ability to frighten</p> <p>4 moderately severe hallucinations</p> <p>5 severe hallucinations</p> <p>6 extremely severe hallucinations</p> <p>7 continuous hallucinations</p>
<p>PAROXYSMAL SWEATS -- Observation.</p> <p>0 no sweat visible</p> <p>1 barely perceptible sweating, palms moist</p> <p>2</p> <p>3</p> <p>4 beads of sweat obvious on forehead</p> <p>5</p> <p>6</p> <p>7 drenching sweats</p>	<p>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.</p> <p>0 not present</p> <p>1 very mild sensitivity</p> <p>2 mild sensitivity</p> <p>3 moderate sensitivity</p> <p>4 moderately severe hallucinations</p> <p>5 severe hallucinations</p> <p>6 extremely severe hallucinations</p> <p>7 continuous hallucinations</p>
<p>ANXIETY -- Ask "Do you feel nervous?" Observation.</p> <p>0 no anxiety, at ease</p> <p>1 mild anxious</p> <p>2</p> <p>3</p> <p>4 moderately anxious, or guarded, so anxiety is inferred</p> <p>5</p> <p>6</p> <p>7 equivalent to acute panic states as seen in severe delirium or acute schizophrenic reactions</p>	<p>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.</p> <p>0 not present</p> <p>1 very mild</p> <p>2 mild</p> <p>3 moderate</p> <p>4 moderately severe</p> <p>5 severe</p> <p>6 very severe</p> <p>7 extremely severe</p>
<p>AGITATION -- Observation.</p> <p>0 normal activity</p> <p>1 somewhat more than normal activity</p> <p>2</p> <p>3</p> <p>4 moderately fidgety and restless</p> <p>5</p> <p>6</p> <p>7 paces back and forth during most of the interview, or constantly thrashes about</p>	<p>ORIENTATION AND CLOUDING OF SENSORIUM -- Ask "What day is this? Where are you? Who am I?"</p> <p>0 oriented and can do serial additions</p> <p>1 cannot do serial additions or is uncertain about date</p> <p>2 disoriented for date by no more than 2 calendar days</p> <p>3 disoriented for date by more than 2 calendar days</p> <p>4 disoriented for place/or person</p>

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

The CIWA-Ar is not copyrighted and may be reproduced freely. This assessment for monitoring withdrawal symptoms requires approximately 5 minutes to administer. The maximum score is 67 (see instrument). Patients scoring less than 10 do not usually need additional medication for withdrawal.

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.

Withdrawal Discomfort Experience: A Simple Guide for Making Medication Decisions

- “If zero is feeling completely well and ten is the worst withdrawal you have ever had, what number would you put your withdrawal discomfort on now?”
 - Goal is zero to one

Modifications for Virtual AWM

- Screen out complex patients
 - Alcohol: history of withdrawal seizures or visual hallucinations
 - Behavioral: unreliable behavior or insufficiently committed to entire process
- Require mandatory participation in IOP as soon as withdrawal symptoms are tolerable
- Require involvement of reliable medication manager
 - Have direct communication with manager
 - Establish clear understanding with the patient about not having direct access to the medication and not pressuring the medication manager when the directions of the prescriber are being followed
- Medication issues
 - Larger doses necessary
 - Full comfort is more difficult to achieve
- Problematic issues
 - Unfamiliarity of pharmacists with aggressive medication protocols (“Six a day is too much.”)
 - Difficulty obtaining urine toxicology and breath analysis

Outcomes of Virtual AWM: First 4 Weeks

- Total patients: 37
- Transitioned to intensive outpatient rehabilitation (IOP): 33
- Still active: 32

Outpatient Withdrawal Management ...

- Is medically safe and effective for all but the most severe withdrawal syndromes
- Is doable via telehealth
- Facilitates transition into ongoing psychosocial treatment

Conclusion

By creating enough structure to deliver the withdrawal management in the same setting in which longer term treatment will be delivered, continuity of care is maximized and the chronic nature of alcohol use disorders is more effectively addressed.

Referral Process

Individuals may be seeking withdrawal management (WM) help through 3 primary access points:

- Get Help Now: Statewide SUD hotline 1-800-662-HELP (4357)
- Single County Authorities (SCAs)
- BH-MCOs

Referrals will be made to telehealth/ambulatory WM providers from a statewide list of providers

Referral Process

During this Emergency, referrals will be made to telehealth/ambulatory WM providers from a statewide list of providers

If you are a physician willing to provide the service and be on the list, submit your name to

RA-DATREATMENT@pa.gov

(subject line: “Withdrawal Management Provider”)

Referral Process

TREATMENT SERVICES BEYOND AWM

- Single County Authorities (SCAs) will assist with referral/access to treatment services
- List of SCAs and other helpful resources found on DDAP's website:

<https://www.ddap.pa.gov/Get%20Help%20Now/Pages/COVID-19-Information-for-Providers.aspx>

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