

Management of Alcohol Withdrawal Syndrome

JANET RICKS, DO, and WILLIAM H. REPLOGLE, PhD, *Department of Family Medicine, University of Mississippi Medical Center, Jackson, Mississippi*

NAKIA JOYE COOK, MSIS, AHIP, *Quillen College of Medicine, East Tennessee State University, Johnson City, Tennessee*

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Clinical Question

What is the most effective detoxification regimen for persons with alcohol withdrawal syndrome (AWS)?

Evidence-Based Answer

AWS may be managed with outpatient therapy if the patient has mild to moderate symptoms. (Strength of Recommendation [SOR]: B, based on one randomized, prospective trial). The Clinical Institute Withdrawal Assessment Scale for Alcohol, Revised (CIWA-Ar) may be used to assess symptom severity. (SOR: C, based on consistent reliability and validity from case series studies). The decision to prescribe medication is based on the severity of symptoms. High-quality randomized controlled trials and meta-analyses suggest that long-acting benzodiazepines are generally preferred for managing AWS in the inpatient setting. (SOR: A). However, there is also evidence that benzodiazepines are safe in the outpatient setting. (SOR: B, based on one randomized prospective trial).

Evidence Summary

The CIWA-Ar is a valid and reliable method of determining AWS severity based on 10 symptoms of withdrawal. This scale is easily incorporated into practice and can be used to monitor the success of therapy.¹

Patients with mild AWS symptoms (CIWA-Ar score of less than 8 to 10) can be monitored on an outpatient basis and may not require medication. Patients with moderate symptoms (CIWA-Ar score of 8 to 15) may require medication to alleviate withdrawal symptoms and may be monitored on an outpatient basis. Patients with a CIWA-Ar score of 15 or higher or a history

of alcoholic withdrawal seizure, suicidal ideation, or other comorbid conditions are not eligible for outpatient treatment.^{2,3} Patients may also require inpatient treatment if they develop seizures, delirium, or worsening of symptoms. Uncomplicated detoxification usually requires four to five days.⁴

Although there are data supporting the use of long-acting benzodiazepines for inpatient detoxification of patients with AWS,⁵ evidence for benzodiazepine use in the outpatient setting is limited. In a randomized prospective trial, 164 male veterans of low socioeconomic status were randomly assigned to inpatient (n = 77) or outpatient (n = 87) detoxification.³ Those in the outpatient group returned to the treatment facility each day, Monday through Friday, for evaluation. Patients in both groups usually received 30 mg of oxazepam. Those in the inpatient group were initially given four capsules per day, and dosages were adjusted daily based on patient progress. Persons in the outpatient group were instructed to take one capsule at bedtime and up to four capsules as needed during the day. There were no medical complications (i.e., seizures, delirium tremens, or death) in either cohort.

The mean treatment duration was significantly shorter for persons in the outpatient group than in the inpatient group (6.5 versus 9.2 days); however, significantly more persons in the inpatient group completed detoxification (95 versus 72 percent).³ Of the 24 persons in the outpatient group who did not complete detoxification, six were admitted to inpatient detoxification and 16 had stopped returning for daily evaluations by day 7 (eight patients did not return on day 2). The cost of inpatient therapy ranged from \$3,319 to \$3,665 per patient compared

with \$175 to \$388 for outpatient therapy. The proportions of patients entering rehabilitation after inpatient or outpatient detoxification were 64 and 59 percent, respectively. At the six-month follow-up, no differences were found between groups, and there also were no differences in the use of subsequent alcoholism-treatment services. The authors concluded that outpatient detoxification for patients with mild to moderate symptoms is effective, safe, and less expensive than inpatient detoxification.

Long-acting benzodiazepines are generally preferred for managing AWS in persons receiving inpatient treatment, because of a decreased risk of delirium (number needed to treat [NNT] = 20.4) and seizure (NNT = 13.0).² Short-acting benzodiazepines may be used in patients with comorbidities, such as liver disease. *Table 1* outlines dosages that may be used for fixed-schedule detoxification.^{2,4}

Recommendations from Others

Recommendations from the Substance Abuse and Mental Health Services Administration consensus panel apply only to the management of acute intoxication and withdrawal, and are not appropriate for outpatient detoxification.⁶ However, according to the American Society of Addiction Medicine, patients with mild AWS, no history of seizures or delirium tremens, and no concurrent comorbidities may be eligible for outpatient detoxification.⁷ Patients must have a responsible person to monitor them, must be evaluated by medical personnel on a daily basis until they have stabilized, and must have access to transportation to emergency medical services.⁷

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Address correspondence to Janet Ricks, DO, at jricks2@umc.edu. Reprints are not available from the authors.

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Table 1. Benzodiazepine Dosages for Fixed-Schedule Detoxification in Patients with Alcohol Withdrawal Syndrome

<i>Benzodiazepine</i>	<i>Dosage</i>
Long-acting	
Diazepam (Valium)	10 mg every six hours for four doses, followed by 5 mg every six hours for eight doses
Chlordiazepoxide (Librium)	50 mg every six hours for four doses, followed by 25 mg every six hours for eight doses
Short-acting	
Lorazepam (Ativan)	2 mg every six hours for four doses, followed by 1 mg every six hours for eight doses
Oxazepam	30 mg every six hours for four doses, followed by 15 mg every six hours for eight doses

Information from references 2 and 4.

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