

Clinical Pearl

# Diagnosing Alcohol Abuse and Treating Withdrawal Syndrome

## Methods for diagnosing alcohol abuse among medical residents and treating alcohol withdrawal syndrome.

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According to the American Board of Internal Medicine, a problem resident is defined as a "trainee who demonstrates a significant enough problem [to require] intervention by someone of authority, usually the program director or chief resident" [1]. Among the factors that contribute to creating problem residents is substance abuse, including alcohol abuse [2,3]. Studies have revealed that, with the exception of alcohol abuse, resident physician substance use is lower than that in comparable age-related cohorts in the general population [4], and where there is substance use, much of it started prior to medical school [5].

### Diagnosing Alcohol Abuse

Standard screening questions for excessive alcohol use constitute a simple and reliable method of identifying potential alcohol abuse [6]. The CAGE questionnaire is a brief test that consists of 4 yes-or-no questions:

1. Have you ever felt you should **cut** down on your drinking?
2. Have people **annoyed** you by criticizing your drinking?
3. Have you ever felt bad or **guilty** about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (**eye-opener**)?

Answering "yes" to 1 or more questions on the CAGE questionnaire indicates a need for further assessment, including a detailed family history for alcohol abuse. Alcohol abuse may be evident in physical exam findings that include hepatomegaly, rhinophyma (hypertrophy of the nose with follicular dilatation), hand tremors, and skin petechiae, or laboratory findings of elevated GGT, MCV, and serum uric acid. However, physical exam and lab studies are less reliable in identifying alcohol abuse because they have low sensitivity except in cases of severe, longstanding alcohol abuse.

### Treating Alcohol Withdrawal Syndrome

Alcohol withdrawal syndrome (AWS) results from the cessation of or reduction in heavy or prolonged alcohol use, and is characterized by 2 or more of the following symptoms developing over a period of several hours to a few days [7]:

- Autonomic hyperactivity (diaphoresis, tachycardia, systolic hypertension);
- Hand tremor;
- Insomnia;
- Transient hallucinations;

- Nausea or vomiting;
- Psychomotor agitation;
- Anxiety;
- Grand mal seizures.

According to a recent study, many US teaching hospitals have ethanol on their formulary and continue to prescribe it as a treatment for alcohol withdrawal syndrome [7]. Of the 122 eligible hospitals surveyed, physicians in 62 hospitals were reported to have used ethanol to prevent or treat AWS. Standard pharmacological therapy should be benzodiazepine, with beta-blockers and clonidine as adjuvant therapy [8-10]. No clinical trials have shown that ethanol administration is appropriate therapy for AWS.

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