How to Predict Severity of Alcohol Withdrawal

Introduction

Predicting the severity of withdrawal is important for deciding on the right treatment setting. Will your patient need inpatient treatment, or will outpatient treatment be sufficient? And if inpatient is needed, will they need to be treated in the ICU, or will a psychiatric unit suffice? In this fact sheet, we help you predict the severity of withdrawal in a given patient.

Predictive of Less Severe Withdrawal

- Patient reports only minimal symptoms of withdrawal in the past (eg, they felt sweaty and shaky but those symptoms went away on their own within days)
- Binge drinking pattern (eg, weekend drinkers); such patients rarely experience withdrawal symptoms, because they are used to the rapid rise and fall in blood alcohol level (BAL), so they don't establish the same tolerance as daily drinkers

Predictive of More Severe Withdrawal

- Long duration of heavy and regular alcohol use
- Early signs of withdrawal even though the patient has a positive BAL—this indicates that they drink so continuously that they are unable to tolerate a low BAL
- Marked autonomic hyperactivity on presentation (eg, elevated systolic BP on presentation, pulse >100 bpm)
- Comorbid medical illness (especially coronary artery disease and alcohol-related liver disease)
- Older age (>65 years)
- Physiologic dependence on benzodiazepines in addition to alcohol use
- The following lab abnormalities have been correlated with more severe withdrawal:
  - Serum chloride <96 mmol/L (this is the main "inhibiting" ion in the CNS, so a low level indicates hyperexcitability)
  - Low platelet count
  - Low hemoglobin (anemia)
  - High alanine transaminase (ALT)

Scales to Predict Severity of Alcohol Withdrawal

- PAWSS (Prediction of Alcohol Withdrawal Severity Scale)
  - 10-item scale
  - 100% specificity and sensitivity in predicting moderate to severe withdrawal
  - Ref: Maldonado JR et al, *Alcohol* 2014;48(4):375–390
- LARS (Luebeck Alcohol Withdrawal Risk Scale)
  - 11-item shortened version
  - Specifically designed to predict severe alcohol withdrawal syndrome (AWS) among patients without significant comorbid illness
    - Prospective study of 100 patients in a hospital psychiatric unit
  - 100% sensitivity and 88% specificity to differentiate severe AWS from mild to moderate AWS