

Special Considerations For Alcohol-Related Presentations in the ED

ALCOHOL-RELATED PRESENTATIONS

Intoxication

- Intoxicated patients are at risk for missed diagnoses, including trauma and any conditions that present as altered mental status such as hypoglycemia, diabetic ketoacidosis, sepsis, and other concurrent substance use. All patients found to be intoxicated should be assessed for trauma and complicating medical conditions such as pancreatitis, arrhythmia, hypothermia, and gastritis.
- Agitation in intoxicated patients should be managed with verbal de-escalation and antipsychotics, ketamine, or benzodiazepines if required. Agitation in patients with withdrawal symptoms must be treated with benzodiazepines.
- Intoxicated patients should not be discharged until their risk of alcohol-related harms, such as falls or sedation, is resolved unless they are transferred to WMS or have reliable support person(s) able to monitor and return them to care if required.
- Intoxicated patients seeking alcohol cessation should be assessed for their risk of alcohol withdrawal. If they have been drinking at least five standard drinks per day for at least one consecutive week and have a past history of withdrawal seizures or DTs, they should be observed in the ED and provided with benzodiazepine loading doses at the earliest signs of alcohol withdrawal or six hours after the last drink.

Seizures

- The highest risk for alcohol withdrawal seizures is during the first 72 hours from last drink, though they can occur anytime in the first week after alcohol cessation. Though the onset of withdrawal is typically six to twelve hours from the last drink, patients with a history of recurrent withdrawal seizures and/or high levels of consumption can have seizures occur even earlier, while their blood alcohol level is still elevated but dropping.
- Withdrawal-related seizures are usually, but not always, preceded by autonomic hyperactivity such as sweating and tremor, and are generalized, brief, and typically without a post-ictal phase. Withdrawal-related seizures are not a risk for chronic seizure disorder.
- Benzodiazepines are the only evidence-based prevention and treatment for alcohol withdrawal seizures, though anticonvulsants can be used as adjunct treatment for management of withdrawal.
- Patients with a history of alcohol withdrawal seizures are at risk for recurrent alcohol withdrawal seizures and should receive loading doses of benzodiazepines (e.g., diazepam 20 mg every hour for three hours or until lightly sedated with minimal to no tremor) as early as possible in their presentation as blood alcohol levels lower and they move into withdrawal.

Alcoholic Hallucinosi

- Alcoholic hallucinosis presents as predominantly visual hallucinations without a clouding of the sensorium. Consider other diagnoses (such as schizophrenia) for reports of auditory or command hallucinations.
- Alcoholic hallucinosis presents within twelve to 24 hours from the last drink, and typically resolves within 48 hours.
- Appropriate treatment of alcohol withdrawal will typically resolve alcoholic hallucinosis, though addition of antipsychotics can be added if required for distressing or persistent hallucinations. Caution is required when using antipsychotics while the patient is in moderate to severe alcohol withdrawal, as both antipsychotics and withdrawal can cause QT prolongation; first-generation antipsychotics pose the greatest risk.

Delirium Tremens

- Delirium tremens (DTs) presents with confusion and disorientation. It is typically preceded and accompanied by autonomic hyperactivity such as tachycardia, hypertension, tremor, low-grade fever, agitation, and diaphoresis. It usually begins three to five days from the last drink, following several days of severe withdrawal.
- The mortality rate for DTs has declined over time with fast and appropriate access to treatment but can range from 1–15%, with higher risk for those with older age or concomitant conditions.
- Risk factors for DTs include a history of sustained drinking, a history of seizures or DTs, recent withdrawal seizures, older age, use of sedating medications, concurrent medical illness (such as pneumonia), and a high CIWA-Ar score (unrecognized or undertreated withdrawal).
- Early and aggressive benzodiazepine treatment has been shown to reduce the duration of DTs and reduce the need for intubation and ICU admission. Patients in severe withdrawal may need intravenous benzodiazepines and phenobarbital.
- In addition to benzodiazepine treatment, electrolyte imbalances should be corrected, and the patient should be in a bed with a high nurse-to-patient ratio and cardiac monitoring capabilities.
- Patients who are agitated and at risk for flight or injury may require chemical or physical restraints and/or a Form 1 for their safety.

Wernicke's Encephalopathy

- Wernicke's encephalopathy presents with confusion, ataxia (slow, unsteady gait), and ocular abnormalities (double vision, nystagmus, or paralysis of ocular muscles). Diagnosis can be difficult in patients who are intoxicated or in withdrawal.
- If left untreated, this can lead to Wernicke-Korsakoff Syndrome, resulting in a chronic memory deficit usually affecting short-term memory.
- Risk factors include poor diet, poor absorption (e.g., gastric bypass), and liver disease.
- Wernicke's can be prevented by routinely administering thiamine; the usual dose is 300 mg IM or IV (to bypass poor gastric absorption). Higher doses of 500 mg IM or IV at least twice daily are needed for treatment. Patients should be prescribed oral thiamine 100 mg once daily for at least one month post-discharge.

Physical Trauma

- Acute intoxication is a risk factor for accidental injuries and for injuries resulting from violence. All patients presenting with major or minor physical trauma should be assessed for high-risk drinking or alcohol use disorder (AUD) after presenting concerns are addressed.
- Patients with AUD/high-risk alcohol consumption should be offered information on RAAM clinics and anti-craving medications.

ACCOMPANYING HEALTH CONDITIONS

The severity of the health condition and associated factors that can complicate withdrawal should be used to determine the level of monitoring. Patients with uncontrolled or severe illnesses such as cardiovascular disease, liver disease, or respiratory distress require special consideration in the choice of medication and more frequent monitoring and dosing.

Cardiac Disorders

- Initiate early and aggressive symptom-triggered treatment to prevent the exacerbation of cardiac disorders due to alcohol withdrawal. Patients presenting with one or more signs of marked autonomic hyperactivity (tachycardia, hypertension, confusion, agitation, profuse sweating, severe tremor) are at risk for prolonged QT interval and tachyarrhythmias; consider intravenous benzodiazepines to prevent these outcomes. Additionally, electrolyte and fluid abnormalities should be corrected early in treatment.
- Severe alcohol withdrawal is sometimes accompanied by prolongation of the QT interval, which can lead to life-threatening ventricular arrhythmias (torsades de pointes). Serial ECGs and cardiac monitoring should be performed if the patient is in severe withdrawal and tachycardic or hypertensive. The QT interval normalizes as withdrawal resolves, so patients with prolonged QT should be treated aggressively.
- “Holiday heart”, or cardiac arrhythmia following a period of binge drinking often observed after holidays or weekends, requires screening for high-risk drinking or AUD. Treatment should follow the appropriate cardiac pathways with consideration of alcohol withdrawal management as required and connection to substance use treatment services.

Gastrointestinal Problems

A. LIVER DISEASE

- Caution should be taken when prescribing to individuals with severe liver disease such as cirrhosis:
 - Because of diazepam’s hepatic metabolism and active metabolites, lorazepam is preferred in patients with cirrhosis, and lower doses of lorazepam should be used in those with decompensated cirrhosis.
 - Gabapentin can be used when benzodiazepines are contraindicated because it has no appreciable hepatic metabolism. It should only be used in mild to moderate withdrawal and when there is no history of withdrawal requiring hospitalization, withdrawal seizures, or DTs. It can be used upon discharge when severe withdrawal or withdrawal history have already been managed.
 - Patients should be informed that the early stages of liver disease – fatty liver and asymptomatic transaminitis – are often reversible with abstinence or reduced drinking, and patients with compensated cirrhosis can have a good long-term prognosis if they remain abstinent.
 - Acamprosate is the preferred anti-craving medication because it is safe in liver disease. Patients with alcohol-induced liver disease should be referred to a RAAM clinic or other addiction service.
 - Features of liver failure (decompensated liver disease) include esophageal varices, ascites and hepatic encephalopathy. Liver transplant is the most effective option for patients with liver failure who have not responded to abstinence and medical therapy. Transplant programs usually require patients to be abstinent for six months to be eligible.

B. GASTRITIS, DUODENITIS

- Alcohol is a major cause of gastritis, duodenitis, esophagitis and other GI conditions. In addition to standard treatments, patients should be given brief advice on abstinence or reduced drinking. Patients should be given information on RAAM clinics, WMS, and other treatment programs and offered an anti-craving medication.

Pancreatitis

- Long-term heavy alcohol use is a risk factor for acute and chronic pancreatitis. Limited evidence suggests that abstinence is associated with improvements in abdominal pain and pancreatic function. Patients with pancreatitis should be referred to a RAAM clinic or other service if they are actively drinking, and to a smoking cessation clinic if they are currently smoking.

Mental Health

- Alcohol consumption is often used to manage or mask mental health conditions such as depression and anxiety, and concurrent management of these underlying conditions is recommended to aid in any goal of decreased consumption. Support services can be offered through a peer support worker, social worker, substance use navigator, addiction service worker, mental health coordinator, or health promotion advocate who can provide support, information about treatment, and linkages to community-based treatment and resources, such as withdrawal management services, RAAM clinics, or psychosocial supports.
- Suicide is a major cause of death among patients with AUD. Patients who present to the ED with intoxication and suicidal ideation are at high risk for a subsequent suicide attempt, even if their suicidal ideation resolves when they are no longer intoxicated. Prior to discharge, the patient should be seen by an on-site peer support worker, addiction service worker, or social worker, if available. They should be urgently referred to a RAAM clinic and mental health services.

OLDER ADULTS

Older adults require specialized screening for the following unique concerns:

Isolation

- Ask older adults about support and connections with family, friends, and/or community. Limited social interactions are a risk factor for mental health and substance-related concerns. Make onsite connections or offer referrals to social work, personal support work, and/or other services to help build social connections.

Renal Function

- Renal clearance declines with age and can be affected by other health conditions and medications. As many medications are renally cleared, Cr and GFR should be ordered. Consider the use of a renal adjustment calculator to determine appropriate dose adjustments.
- Acamprosate requires dose adjustment with CrCl 30–50 ml/min to 333 mg (one tab) three times daily.

Medication Interactions

- Many older adults will be on multiple medications, both prescription and non-prescription. It is important that all new medications be checked for drug-drug interactions.

Sedation and Fall Risk

- Special caution should be taken when adding medications that can cause sedation due to the increased risk of falls. Ensuring that patients have access to their mobility devices in the ED will help to decrease the risk of falls. It is important to ensure an assessment of the individual's mobility needs prior to admission and discharge.
- Diazepam has a long half-life; due to decreased hepatic metabolism, diazepam increases the risk of sedation in older adults. Consider the use of lower-dose lorazepam when benzodiazepines are required.

PREGNANCY

Alcohol withdrawal poses great risks during pregnancy. Some of these risks include dehydration, hypertension, miscarriage, and premature birth.

- Pregnant people with moderate to severe alcohol withdrawal (CIWA-Ar ≥ 10) should be managed in an inpatient setting where they can receive symptom-triggered treatment with close monitoring. Based on the stage of pregnancy, fetal heart rate monitoring may be warranted for early detection of fetal distress.
- Consider the following general guidelines for management of alcohol withdrawal in pregnancy:
 - Gabapentin can be used when there is a low risk for withdrawal complications.
 - Long-acting benzodiazepines can be used for a short duration in pregnancy except in the late third trimester; use short-acting benzodiazepines in the late third trimester to minimize benzodiazepine intoxication in the newborn.
 - Naltrexone and acamprosate are both FDA pregnancy category C, with no human trials completed. However, the benefits of these medications often outweigh the risks of ongoing alcohol exposure (a known teratogen) and should be discussed with the patient.

YOUTH

Youth with addictions are greatly underserved in Ontario. Because of the specific criteria for substance use disorder in the DSM-5, many adolescents and young adults go undiagnosed.

- Substance use predisposes youth to relationship difficulties, trouble in school/work, and homelessness. A full biopsychosocial assessment should be completed for every youth seeking care.
- Youth are at high risk for polysubstance and binge use of their substances of choice. This complicates intoxication and withdrawal presentations and management. Toxicology can be useful in determining substances exposure and developing an appropriate care plan.
- Having a peer support worker specifically for youth can help to reduce barriers to care by meeting patients where they are at in their journey and offering appropriate harm reduction services, community connections, and accessible information.

POLYSUBSTANCE USE

Patients may present with concurrent substance use disorders and polydrug withdrawal. There is commonly overlap in withdrawal symptoms from different substances, and this overlap can increase the severity of withdrawal experienced. This overlap also means that withdrawal monitoring scales, such as the CIWA-Ar, should not be solely relied upon, as their accuracy decreases (e.g., tremor can be from opioid or alcohol withdrawal if occurring concurrently). For this reason, closer monitoring of patients with polydrug withdrawal is needed. The inaccuracy of monitoring scales decreases the effectiveness of symptom-triggered regimens, and fixed dosing regimens with increased monitoring is recommended.

It is important to prioritize withdrawal from the substance with the greatest risk for complications and severe withdrawal. This usually means prioritizing alcohol withdrawal due to risks such as withdrawal seizures, DTs, and Wernicke's encephalopathy.

Alcohol and Opioids

- Patients are at increased risk of sympathetic stimulation and dehydration from excessive vomiting/diarrhea.
- Management of opioid use disorder (OUD) requires opioid agonist therapy (OAT); relief of opioid withdrawal may help to reduce alcohol consumption.
- Caution should be taken when combining two medications with the risk of sedation and respiratory depression such as methadone and benzodiazepines.
- Management considerations:
 - Patients on opioids or OAT should not be started on naltrexone as an anti-craving medication for alcohol use, given the risk for precipitated withdrawal. Consider acamprosate as an alternative.
 - Benzodiazepines enhance the respiratory suppressing effect of opioid medications; therefore, caution is needed when treating alcohol withdrawal in patients who are taking opioid analgesics, OAT, or unregulated opioids. Shorter-acting benzodiazepines and/or lower doses should be considered.
 - Any ongoing OAT prescriptions should be continued in the ED. For patients not already on OAT, consider initiating after management of acute alcohol withdrawal; of the available options, buprenorphine has the best safety profile and is usually the treatment of choice when concurrent withdrawal is being managed.

Alcohol and Stimulants

- Patients are at increased risk of severe and protracted withdrawal, anorexia, insomnia, and agitation.
- Management considerations:
 - Higher doses of benzodiazepines may be needed to manage acute withdrawal.

Alcohol and Benzodiazepines

- Concurrent benzodiazepine use delays the onset of alcohol withdrawal symptoms but increases the severity of symptoms, prolongs the course of withdrawal, and increases the risk of seizures.
- Management considerations:
 - Higher doses of benzodiazepines may be needed to manage acute alcohol withdrawal.
 - For those with benzodiazepine use disorder, acute alcohol withdrawal management should smoothly transition into a benzodiazepine taper. For patients that are admitted, taper plans can begin in hospital and be continued in the community by their primary care provider or an addiction clinic.