Toolkit for Alcohol-Related Presentations to the Emergency Department

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CONTENTS

Introduction

Recommendations

- Recommendations on the Management of Selected Alcohol-Related Presentations in the Emergency Department
- Summary of Recommendations on the Management of Selected Alcohol-Related Presentations in the Emergency Department
- Special Considerations for Alcohol-Related Presentations in the ED

Order Sets and Algorithms

- Order Set for Alcohol Withdrawal
- Choosing an Anti-Craving Medication
- Approach to ED Patients with Alcohol-Related Presentations

Discharge

- Alcohol Withdrawal Management Rx
- ED Naltrexone, Gabapentin, & Acamprosate Rx
- Naltrexone Discharge Information for Primary Care
- Acamprosate Discharge Information for Primary Care
- Gabapentin Discharge Information for Primary Care

Patient-Facing Documents

- Patient Handout
- Emergency Department Waiting Room Poster

Training

- Clinical Institute Withdrawal Assessment for Alcohol Revised (CIWA-Ar) Training Tool
- Brief Negotiated Interviews (BNI)

Toolkit for Alcohol-Related Presentations to the Emergency Department

PURPOSE

This toolkit was created for emergency department (ED) providers to optimize management of alcohol-related presentations.

SCOPE

This toolkit was created for ED providers, including counsellors, nurses, nurse practitioners, peer support workers, pharmacists, physicians, and social workers. There are various tools in this toolkit, and we hope that clinicians will find and use those most helpful to their role.

This toolkit addresses the effective treatment of alcohol withdrawal, management of other alcohol-related presentations, brief counselling interventions, initiation of anti-craving medications, and referral to community resources. The tools include evidence-informed recommendations, order sets, algorithms, sample prescriptions, and patient materials.

DEVELOPMENT

The toolkit provides updated evidence-informed guidance regarding management of alcohol-related presentations to the ED. The components of the toolkit were informed by focused literature reviews using combinations of search terms, including the following: alcohol withdrawal, emergency department, withdrawal scales, diazepam, naltrexone, acamprosate, gabapentin, seizures, arrhythmias, and thiamine. Included were available published guidelines focused on alcohol and withdrawal such as those from British Columbia Centre on Substance Use, the American Society of Addiction Medicine, the American Academy of Emergency Medicine, Alberta Health Services, and the Australian government. The group of authors was selected to represent different geographic locations across Ontario, various professions, and both clinical and experiential expertise of substance use. Authors worked towards group consensus; points of disagreement among the authors are noted in the text. The toolkit has undergone a comprehensive review by META:PHI's advisory.

RATIONALE

Alcohol-related ED visits are more costly than all other substance use ED presentations combined and are increasingly common and severe, having been made worse during the COVID-19 pandemic. People who visit the ED for alcohol-related reasons are at higher risk for death than the general population. Preliminary evidence suggests that optimal management in the ED reduces return visits to the ED and improves drinking outcomes. It is thus critical that ED clinicians have readily available information to help guide care and improve patient outcomes.

LIMITATIONS

Toolkit development did not include an extensive or systematic literature review, and it does not cover all possible alcohol-related presentations or considerations. Instead, it focuses on common and high-risk presentations and was based on expert opinion and informed by the available evidence.

FUTURE GOALS

It is our hope that the toolkit will encourage EDs to focus on alcohol-related presentations given their high-risk nature and cost. This should include increasing capacity for ED training and education, increasing peer support and addiction consultation staffing, promoting alcohol withdrawal management and initiation of anti-craving medications in the ED, and working to improve communication with community partners.

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Recommendations on the Management of Selected Alcohol-Related Presentations in the Emergency Department

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TABLE OF CONTENTS

A. Background 1

B. Patient Assessment and Disposition 1

C. Benzodiazepine Treatment for Alcohol Withdrawal 4

D. Preventative Treatment for Complications of Alcohol Withdrawal 5

E. Treating Severe Alcohol Withdrawal, Withdrawal Seizures, and DTs 6

F. Psychosocial Interventions and Mental Health 9

G. Discharge 11

H. Quality Improvement 13

References 16

A. BACKGROUND

Alcohol-related emergency department (ED) visits are increasingly common. In a retrospective population-level study of alcohol-related ED visits in Ontario 2003 to 2017 (1), the total number of alcohol-related visits was 829,662, or about 55,000 per year, with a substantial rate increase over the study period. Alcohol use–attributable ED visit costs in Ontario were $78.15 million in 2020, higher than the cost of all other substance use–attributable ED visits combined ($67.2 million) (2). The COVID-19 pandemic has also had an impact on alcohol-related healthcare use; one study showed a 34% increase in rates of alcohol withdrawal in hospitalized patients from March to September 2020 compared to the same period in 2019 (3). During and after COVID-19 stay-at-home orders, there was an increase in the ED diagnosis of alcohol withdrawal (4, 5) and severe withdrawal with complications such as delirium tremens (DTs) and seizures (6).

People who visit the ED for an alcohol-related reason are at higher risk for death. Individuals who visit the ED at least once for an alcohol problem have been found to have a mortality rate of 2% in the year following the visit, which is four times higher than the annual mortality rate in the general population (7). Patients who attended the ED two or more times within a year for an alcohol problem had a one-year mortality rate of 5.4%, rising to 8.8% for those with five or more visits (8). Furthermore, failure to meet an ED patient's substance-related needs increases return visits, adding to ED capacity and cost burden (9).

The purpose of these recommendations is to provide updated evidence-informed guidance regarding management of alcohol withdrawal and alcohol-related presentations in the ED, with the goal of facilitating effective and supportive patient care, reducing repeat ED visits, and lowering one-year mortality rates. The recommendations address the following clinical objectives:

- Effective treatment of alcohol withdrawal
- Brief interventions for alcohol use
- Initiation of anti-craving medications
- Connection to community addiction services

These recommendations are based on focused literature reviews using combinations of search terms, including the following: alcohol withdrawal, emergency department, withdrawal scales, diazepam, naltrexone, acamprosate, gabapentin, seizures, arrhythmias, and thiamine. There are limited randomized controlled trials available on emergency department treatment of alcohol-related presentations. Included were available published guidelines focused on alcohol and withdrawal such as those from British Columbia Centre on Substance Use, the American Society of Addiction Medicine, the American Academy of Emergency Medicine, Alberta Health Services, and the Australian government. The recommendations are based on expert opinion, informed by the available evidence.

B. PATIENT ASSESSMENT AND DISPOSITION

Alcohol intoxication and withdrawal (including seizures) are the most common ED presentations related to alcohol use. Other common alcohol-related presentations to the ED include trauma (e.g., accident, assault), cardiac issues (such as chest pain or arrhythmias), hepatic and extra-hepatic sequelae (e.g., ascites), gastro-intestinal issues (such as pancreatitis or gastritis), psychiatric conditions (such as self-harm or suicidal ideation), "feeling unwell", or repeat ED visits (10). Each of these presentations requires an assessment for safety, the need for withdrawal management, disposition, and at least a brief intervention regarding additional psychosocial and medication approaches to treatment.

B1. Intoxicated patients should be assessed for concurrent medical issues.

Patients with alcohol intoxication are at high risk of missed associated diagnoses including trauma and medical conditions with presentations of altered mental status such as hypoglycemia, diabetic ketoacidosis, 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. At a minimum, all patients presenting with intoxication should have vitals completed. If a reliable history is unavailable, a careful physical exam and more extensive laboratory measurements are required, with a CT head if there are any signs or a suspicion of a head injury.

Respiratory depression should be monitored closely, ideally with pulse oximetry, and the patient should remain in a safe position with the bed rails up and elevated head of bed to prevent aspiration in case of vomiting. Protective airway devices and intubation should be considered if a patient shows signs of respiratory depression or is unable to protect their airway.

If an intoxicated patient is agitated, verbal de-escalation should be attempted. If the situation cannot be de-escalated, and the patient poses a risk to themself or others, restraint (either physical or chemical, e.g., with antipsychotics, ketamine, or benzodiazepines) may be required. Agitation in patients with withdrawal symptoms must be treated with benzodiazepines.

Intoxicated patients should be assessed for their capacity before discharge, with consideration of the supports they are being discharged with and to. Patients should not be discharged until their risk of alcohol-related harms such as falls or sedation is resolved unless they have reliable support person(s) able to monitor and return them to care if required.

B2. All patients with an alcohol-related presentation should be assessed for the need for medical management of withdrawal and be in an appropriate setting for withdrawal management.

People are at known risk for withdrawal if they have consumed more than five standard drinks daily for at least one week consecutively and if they have experienced withdrawal of any severity in the past. Withdrawal symptoms typically develop six to twelve hours after the last drink. Therefore, patients who present with intoxication, as well as those already in withdrawal, should be assessed for the need for medical management of withdrawal. The clinician should take a focused history, including daily alcohol consumption, time of last drink, current alcohol use goals, and history of previous withdrawal experiences including medication treatment, admission, seizures, and delirium tremens (DTs).

Alcohol withdrawal management is not required for patients who do not have a current goal of alcohol cessation unless they will enter withdrawal while awaiting treatment of other health conditions (e.g., having a bone set, awaiting other laboratory results, etc.); in these situations, withdrawal should be managed with **benzodiazepine treatment** or with a managed alcohol program if available.

If required, treatment of withdrawal can typically be initiated in the ED; completion of treatment may require admission to hospital or take place in the community (withdrawal management setting or at home), depending on the patient's past experiences of withdrawal, concurrent medical conditions, and psychosocial factors.

Hospital admission to complete withdrawal management is warranted for patients with any of the following criteria:

- **Treatment-refractory withdrawal in the ED**
- **Active DTs**
- Wernicke's-Korsakoff syndrome
- Concurrent unstable or complex medical conditions
- Pregnancy
- Psychiatric conditions requiring active management such as suicidal or homicidal ideation

Patients with histories of mild to moderate withdrawal without medical comorbidities or concurrent substance use can complete their treatment in the community, either at home or in a withdrawal management setting (WMS). Discharge home is appropriate for patients with stable/safe housing who have someone who can assist with supporting and monitoring symptoms and use of medication. An alternative is daily pharmacy dispensing of medication with pharmacist instruction to hold the medication with any concerns of intoxication or return to drinking. Discharge to WMS is appropriate for individuals who do not have a safe space and would benefit from support with medication adherence and engagement in continuing treatment for alcohol use disorder. WMS are generally non-medical facilities with limited access to medical care. Patients being discharged to WMS should meet the following criteria:

- Medically stable, e.g., not at risk for dehydration or electrolyte imbalance
- No definitive signs of severe alcohol withdrawal: Autonomic hyperactivity (i.e., SBP > 180 DBP > 110, HR > 120 bpm, T > 37.5 C, arrhythmia, profuse sweating, repeat vomiting, or severe withdrawal tremor), hallucinations, psychomotor agitation, confusion, disorientation, delusions, withdrawal seizures, or DTs
- **Loading doses** have been given if previous history of seizures or DTs
- **CIWA-Ar** < 10 on two consecutive assessments at least one hour apart

B3. All ED patients with severe alcohol withdrawal, seizures, DTs, or complicating medical conditions require ED treatment and close monitoring.

Patients should be assessed for a previous history of severe withdrawal or current **definitive signs of severe alcohol withdrawal:** Signs of autonomic hyperactivity (i.e., SBP > 180 DBP > 110, HR > 120 bpm, T > 37.5 C, arrhythmia, profuse sweating, repeat vomiting, or severe withdrawal tremor), hallucinations, psychomotor agitation, confusion, disorientation, delusions, withdrawal seizures, or DTs. Severe alcohol withdrawal can be associated with substantial morbidity and mortality if not appropriately managed.

Patients in severe withdrawal, as well as patients with complicating medical conditions that may require close medical supervision, should have a nurse-to-patient ratio that allows frequent monitoring, a cardiac-monitored bed when available, and laboratory investigations including electrolytes. More intensive monitoring should be considered for patients not responding to initial dosing, with worsening withdrawal symptoms, or needing phenobarbital. Patients can be moved to a less monitored area of the ED as their symptoms resolve.

C. BENZODIAZEPINE TREATMENT FOR ALCOHOL WITHDRAWAL

C1. Symptom-triggered benzodiazepine treatment is recommended as the first-line treatment for alcohol withdrawal in the ED.

In symptom-triggered treatment, benzodiazepines are dispensed if the patient scores above a cut-off value on a standardized withdrawal severity scale (e.g., CIWA-Ar ≥ 10), administered at regular intervals dictated by symptom severity. Symptom-triggered benzodiazepine dosing reduces the total amount of benzodiazepines dispensed, reduces the risk of over-medication, and shortens the duration of treatment compared to dispensing benzodiazepines on a fixed schedule (11-14).

While research on symptom-triggered treatment in the ED setting is lacking, many EDs currently use symptom-triggered treatment with good results, and narrative reviews and observational studies have recommended symptom-triggered treatment in the ED (15-17).

C2. Diazepam is the preferred agent for benzodiazepine treatment. Lorazepam is preferred for patients with cirrhosis and those at risk for benzodiazepine toxicity.

Diazepam is preferred for patients without major medical comorbidities because it has a very long duration of action, extended by its active metabolite, and an adequate dose will relieve withdrawal symptoms and prevent rebound of symptoms after discharge (18, 19). There is little direct evidence on the comparative safety and efficacy of lorazepam compared to diazepam (20). However, lorazepam may be preferred over diazepam in patients with cirrhosis (21), as prolonged high plasma levels of diazepam put these patients at high risk of sedation, aspiration, falls, and encephalopathy. Lorazepam may also be preferred for patients who are at higher risk for benzodiazepine toxicity, including the frail elderly, those on high doses of opioids, and those with liver or respiratory impairment (22), because it has a shorter duration of action than diazepam and its mechanism of metabolism, glucuronidation, is not affected by alcoholic cirrhosis. Because of lorazepam's shorter duration of action, more frequent monitoring and dosing is required, as withdrawal symptoms can return as the medication wears off; patients receiving lorazepam may therefore require longer hospital stays or admission.

C3. Benzodiazepine dose and route should correspond to the severity of the presentation and patient characteristics.

Benzodiazepines are not required if the withdrawal is mild (CIWA-Ar < 10); observation alone may suffice. Patients with moderate withdrawal symptoms (CIWA-Ar ≥ 10) who do not have major medical comorbidities should be managed with oral doses of diazepam 20 mg. This dose is generally safe for patients in alcohol withdrawal because alcohol-dependent patients have a high degree of cross-tolerance to benzodiazepines. Given the subjective limitation of the CIWA-Ar, patients that do not have at least one definitive sign of withdrawal despite their scoring can be started on lower doses of treatment at the clinician's discretion (i.e., diazepam 10 mg). Patients with severe or worsening alcohol withdrawal symptoms require **higher doses or intravenous administration**. Intravenous benzodiazepines can also be used when oral administration may be challenging (e.g., agitation or repeat vomiting).

Moderate to severe withdrawal symptoms (CIWA-Ar ≥ 10) in patients with cirrhosis or who are at risk for benzodiazepine toxicity (frail elderly, on high doses of opioids, liver or respiratory impairment) should be managed with oral doses of lorazepam 2–4 mg; patients that do not have at least one definitive sign of withdrawal may be started at 1–2 mg at the clinician's discretion. Patients with decompensated cirrhosis require lower lorazepam doses (e.g., 0.5–1 mg per dose) for moderate withdrawal. Patients with severe respiratory impairment also require dose reductions to avoid respiratory suppression; consider a consultation with internal medicine to appropriately manage respiratory risk.

C4. Dosing frequency should vary with the severity of the presentation and should continue until tremor and other withdrawal signs have resolved.

Frequent dosing (hourly for oral doses, up to every 10 minutes for intravenous doses) is recommended until withdrawal symptoms are almost fully resolved; this will reduce the length of stay, the risk of relapse, and repeated ED visits. The patient is ready for discharge when they have no tremor or minimal residual tremor, and their withdrawal scores should be below treatment cut-off (CIWA-Ar < 10) for at least two readings at least one hour apart.

Hourly or more frequent treatment is recommended in many cases of moderate withdrawal and all cases of severe withdrawal because delays between doses will result in underdosing, which is associated with an increased frequency of complications (23) and may increase likelihood of patients returning to drinking after discharge to relieve withdrawal symptoms. While frequency of dosing and assessment is often determined by nursing resources, more frequent doses may result in earlier symptom resolution and reduced length of stay.

D. PREVENTATIVE TREATMENT FOR COMPLICATIONS OF ALCOHOL WITHDRAWAL

D1. Oral loading doses of benzodiazepines should be used in patients with a history of withdrawal seizures or DTs.

Loading doses reduce length of stay, complications, and withdrawal duration (24). Loading doses should not be started while the patient is still intoxicated due to risks of benzodiazepine-alcohol interactions. For patients with a history of withdrawal seizures or DTs, loading doses can be started either when CIWA-Ar ≥ 10 or at least six hours after the last drink and/or the blood alcohol level (BAL) is trending down. Patients should receive oral loading doses of diazepam 20 mg or lorazepam 4 mg every hour for three doses, monitoring to ensure the patient is not sedated before each dose; lower doses (i.e., diazepam 10 mg or lorazepam 2 mg) can be considered when the clinician is concerned about the risk of oversedation (e.g., patients without definitive signs of withdrawal or at risk for benzodiazepine toxicity).

After loading doses are complete, patients should be placed on an oral symptom-triggered treatment protocol to complete withdrawal management in an appropriate setting.

D2. Thiamine should be administered routinely to prevent Wernicke's encephalopathy.

Thiamine (vitamin B1) is used to prevent or treat Wernicke's encephalopathy. Alcohol alone, and the malnutrition associated with chronic alcohol use, decrease gastric and intestinal absorption of thiamine by 50–70% (25). Because of decreased absorption, thiamine should ideally be provided intramuscularly or intravenously, with intravenous being the preferred route to avoid multiple injections given the volume of medication required. Patients presenting to the ED with alcohol intoxication or withdrawal should be provided at least 300 mg thiamine IM or IV for prevention of Wernicke's encephalopathy; higher doses divided throughout the day should be given if Wernicke's encephalopathy is suspected or diagnosed (22, 24-27). Thiamine should be administered before glucose-containing solutions are administered, unless the patient is hypoglycemic (28); glucose can exacerbate a thiamine deficiency and trigger Wernicke's.[1] Patients should be instructed to continue taking at least 100 mg of thiamine orally once daily for two to four weeks after discharge; patients at higher risk of nutritional concerns (e.g., poor dietary intake, gastric bypass) should be advised to take 100 mg orally three times daily for increased absorption (22, 26, 29). Note that the cost of thiamine is not covered and patients will have to pay out of pocket.

D3. Take steps to prevent arrhythmias.

Arrhythmias can be triggered by electrolyte imbalances, the hyperadrenergic state that accompanies withdrawal, and underlying cardiac disease including alcoholic cardiomyopathy. All patients in moderate to severe withdrawal should have an EKG done and electrolytes (sodium, potassium, chloride, magnesium, calcium, bicarbonate) monitored, and all fluid and electrolyte imbalances should be corrected.[2]

Severe alcohol withdrawal is associated with prolonged QT interval (30), which should be treated with electrolyte correction and withdrawal management. Medications with risks for prolonging the QT interval (such as antipsychotics) should be used with caution in these cases.

E. TREATING SEVERE ALCOHOL WITHDRAWAL, WITHDRAWAL SEIZURES, AND DTS

E1. Patients with an initial presentation of severe alcohol withdrawal should be started with intravenous benzodiazepine doses.

Intravenous benzodiazepine doses can be administered as per clinician discretion if the patient presents to the ED with a CIWA-Ar score of 20 or above and definitive signs of severe alcohol withdrawal (i.e., signs of autonomic hyperactivity (i.e., SBP > 180 DBP > 110, HR > 120 bpm, T > 37.5 C, arrhythmia, profuse sweating, repeat vomiting, or severe withdrawal tremor), hallucinations, psychomotor agitation, confusion, disorientation, delusions, withdrawal seizures, or DTs. Intravenous doses of diazepam 10 mg or lorazepam 2 mg can be given every ten minutes until the patient is no longer in severe withdrawal, at which point oral symptom-triggered dosing can begin. Higher or lower IV benzodiazepine doses can be used at the clinician's discretion. Lorazepam at the lower range (i.e., 0.5–1 mg) should be used for those at higher risk for benzodiazepine toxicity.

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[1] The author group could not come to full consensus about the risk of glucose administration prior to thiamine.
[2] INR should also be monitored if there are signs of liver compromise.

E2. For severe or worsening alcohol withdrawal, double the oral dose or consider intravenous dosing.

Benzodiazepine doses should be escalated if the patient is in severe or worsening withdrawal despite receiving 80 mg or more of diazepam orally or 16 mg or more of lorazepam orally over four hours or less. In this circumstance, diazepam can be doubled to 40 mg per dose orally or given as 10 mg intravenously every ten minutes. Lorazepam can be doubled to 8 mg per dose orally, or 2 mg intravenously every ten minutes, with lower doses for those at higher risk for benzodiazepine toxicity. Consider faster dose escalation or higher dosing in accordance with presentation; for instance, in patients with a baseline tolerance to benzodiazepines (i.e., concurrent daily benzodiazepine use), higher total doses will be required for the treatment of alcohol withdrawal.

Repeat doses of intravenous or intramuscular benzodiazepines can lead to increased risk of respiratory depression; careful monitoring and frequent assessment after each administration is needed, with attention to respiratory rate, oxygen saturation, and sedation.

If the patient responds to these doses and is no longer in severe withdrawal, then symptom-triggered treatment with benzodiazepines may be continued. **Phenobarbital** is indicated if the patient continues to worsen despite these higher doses.

E3. Consider oral or intravenous phenobarbital for severe withdrawal not responding to treatment. Patients requiring phenobarbital should be prepared for hospital admission.

While there is currently insufficient evidence to support the routine use of phenobarbital for mild to moderate alcohol withdrawal in the ED, reviews (15, 31) suggest that phenobarbital is safe and effective in the management of severe alcohol withdrawal. However, there is no consensus on the optimal ED dosing protocol; specific protocols that have been used or proposed in the ED include a single dose of 10 mg/kg IV (32), one dose of 260 mg IV plus one dose of 130 mg IV 48 hours later at the clinician's discretion (33), and a single dose of 7.5 mg/kg IV (34).

The authors of a focused review of the use of adjunctive IV phenobarbital (31) recommended "starting a low dose (i.e., 65 mg), slowly titrating to response at approximately 30- to 60-minute intervals, and closely monitoring the patient for any adverse effects" (p. 1522). Oral phenobarbital has been used at doses of 30–90 mg every eight hours with symptom-triggered lorazepam treatment in between. The literature focuses on the use of lorazepam in conjunction with phenobarbital to offset the risk of combining a longer-acting benzodiazepine like diazepam with the longer-acting phenobarbital, given its narrow therapeutic window.

We recommend that all patients requiring phenobarbital for severe withdrawal be admitted to hospital; consider treatment consultation with the admitting service. Due to phenobarbital's narrow therapeutic window, repeat intravenous dosing may be best reserved for the ICU. Phenobarbital should be used with great care and at low doses in patients who are at risk for benzodiazepine toxicity.

E4. Identify and treat delirium tremens.

Delirium tremens (DTs) is a late complication of alcohol withdrawal, typically occurring three to five days after the last drink. The patient presents with confusion and disorientation, often accompanied by delusions, paranoia, hallucinations, and agitation. In addition, the patient typically has signs of severe autonomic hyperactivity, including tremor, sweating, tachycardia, hypertension, and a low-grade fever. Risk factors for DTs include history of sustained drinking, a history of seizures or DTs, recent withdrawal seizures, older age, use of sedating medications, concurrent medical illness, and a high CIWA-Ar score (35). DTs is usually preceded by severe withdrawal symptoms, including tremor, sweating, agitation, and seizures.

The following steps can be taken to prevent and reduce the duration and severity of DTs in patients at risk:

1. Optimize withdrawal management. Implement **benzodiazepine loading** (36), then progress from **symptom-triggered treatment** to **doubled oral doses or IV doses** to **phenobarbital**. Avoid long delays between doses, as this could result in rapid worsening of symptoms.
2. Initiate cardiac monitoring and correct electrolyte imbalances to help prevent **arrhythmias**.
3. Keep the patient safe from physical harm. If the patient is very agitated and delusional, consider physical restraints if chemical restraints have not been sufficient.
4. Manage delirium and agitation with benzodiazepines rather than antipsychotics (37). If antipsychotics are considered, they should be used with caution due to their potential of lowering the seizure threshold; however, when they are used in low doses, and with proper benzodiazepine treatment preceding antipsychotic use, this risk is theoretically low.
5. Admit the patient to hospital if the patient does not adequately respond to phenobarbital and benzodiazepines in the ED.

E5. Identify and treat hallucinations.

Alcoholic hallucinosis presents as predominantly visual hallucinations without a clouding of the sensorium, which differentiates it from DTs. In other words, the patient is aware that the hallucinations are not real, and they are oriented to time and place. Alcoholic hallucinations usually occur earlier in the course of alcohol withdrawal than DTs, typically within twelve to 24 hours of alcohol cessation. They typically resolve within 48 hours of onset with symptom-triggered treatment with benzodiazepines. If patients present with auditory hallucinations, differentials such as drug-induced psychosis or schizophrenia should be considered. Antipsychotic medications should be used with caution, as they can lower the seizure threshold and prolong the QT interval.

F. PSYCHOSOCIAL INTERVENTIONS AND MENTAL HEALTH

F1. All patients presenting to the ED with clinical signs of alcohol use, an alcohol-related injury, or a condition highly associated with alcohol should be opportunistically screened and offered a brief intervention.

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an approach to identification of at-risk substance use and early intervention that has received substantial attention and support.[3] The three components of SBIRT include brevity, so that it can be delivered quickly in an ED or community setting; a series of questions or prompts to increase awareness and motivate change; and referral to more specialized resources for those identified as needing additional supports (38).

Target presentations include alcohol intoxication and withdrawal (including seizures), trauma (e.g., accident, assault), cardiac issues (such as chest pain or arrhythmias), hepatic and extra-hepatic sequelae (e.g., ascites), gastro-intestinal issues (such as pancreatitis or gastritis), psychiatric conditions (such as self-harm or suicidal ideation), "feeling unwell", or repeat ED visits include the "top 10 conditions" deemed to be high-risk alcohol-related conditions: falls, collapse (including seizures), head injury, assault, accidents, "unwell", non-specific gastro-intestinal issues, cardiac issues (including chest pain), psychiatric conditions (including deliberate self-harm and overdose), and repeat attendance at the ED (10). Other indications include clinical signs of alcohol use and evidence of alcohol in blood, breath, or saliva. In addition, offering a brief intervention to patients with evidence of suicidal ideation is critical, as those with acute intoxication and **suicidal ideation** are a very high-risk population (39). Breathalyzer and measurement of blood alcohol concentrations is not required to make a clinical assessment of a correlation between injury and alcohol ingestion, or to initiate a brief intervention and referral to treatment.

The purpose of the intervention is to make the connection between the person's alcohol use and their ED visit without judgment; diagnosis of an alcohol use disorder is not the goal. The intervention should be initiated only **after** dealing with the patient's presenting problems and should be framed as a question routinely asked of all patients with the given presentation.

Brief negotiated interviews (BNIs) have been shown to decrease alcohol consumption and alcohol-related consequences when delivered to selected ED patients (40, 41). The BNI has four major components (42):

1. Establish rapport and ask permission to discuss alcohol consumption and its possible consequences.
2. Provide feedback on the patient's drinking levels and make a connection to the ED visit.
3. Enhance motivation to reduce drinking by asking how ready on a scale of 1–10 the patient is to change any aspect of their drinking.
4. Negotiate goals and advise a plan of action.

[3] **https://www.samhsa.gov/sbirt**

F2. When possible, patients presenting with alcohol-related conditions should receive psychosocial support in the ED.

Receipt of substance use navigation services by patients with alcohol, opioid, and cocaine use disorders while in the ED has been strongly associated with higher rates of medications for addiction treatment being administered in the ED and prescribed at discharge and higher odds of follow-up (43). If possible, patients who express an interest in treatment should be seen by a peer support worker, social worker, substance use navigator, addiction service worker, mental health counselor, or health promotion advocate, any of whom can provide support, information about treatment, and linkages to community-based treatment and resources, such as withdrawal management services, RAAM clinics, or psychosocial supports.

F3. Patients presenting with suicidal ideation or a suicide attempt and an alcohol-related concern should receive an on-site intervention and referral to an addiction treatment service.

Suicide is a major cause of death among patients with severe alcohol use disorder (8). Alcohol dependence (44), acute intoxication, major depressive disorder (45), and social factors such as interpersonal conflict are significant risk factors for suicide attempts. Patients who present with both an alcohol-related concern and suicidal ideation or attempts should receive comprehensive treatment for both their alcohol use and concurrent psychiatric disorders (46, 47). The following steps should be taken:

1. Arrange for a mental health assessment if the patient has a concurrent psychiatric disorder. If suicidal ideation persists when intoxication has resolved, the patient may require voluntary or involuntary admission. The patient should be referred to outpatient mental health services (e.g., psychiatry) if the suicidal ideation resolves when the patient is no longer intoxicated.
2. If appropriate, prescribe an **anti-craving medication** such as naltrexone, acamprosate, and/or gabapentin.
3. If the patient has major depressive disorder, consider prescribing an antidepressant and/or referring to mental health, both of which can improve mood and drinking outcomes (48).
4. Provide a **brief intervention**: inform the patient that reducing their drinking will improve their mood and daily functioning, and they will be much less likely to think of or attempt suicide.
5. If the patient will be discharged from the ED, give them information on accessing treatment for alcohol use disorder (i.e., with their primary care provider, a RAAM clinic, or another local resource). Even if the patient is no longer suicidal after the intoxication has resolved, patients who have presented with suicidal ideation are at high risk for a future suicide attempt if they have an alcohol use disorder, return to drinking heavily, have attempted suicide in the past, have an underlying psychiatric condition, or have had a recent loss or conflict. If possible, they should be seen prior to discharge by a peer support worker, social worker, substance use navigator, addiction service worker, mental health counselor, or health promotion advocate to facilitate **connections to treatment**.

G. DISCHARGE

G1. Ensure withdrawal is adequately treated before discharge.

If a patient undergoes ED treatment for alcohol withdrawal, the clinician should ensure that the CIWA-Ar < 10 for two consecutive measurements at least one hour apart, the patient is comfortable with minimal or no tremor, and vital signs have returned to their baseline before discharge.

G2. Consider an outpatient gabapentin prescription for patients being discharged with ongoing mild withdrawal symptoms.

Patients who have had adequate withdrawal treatment in the ED are unlikely to require outpatient prescriptions for ongoing withdrawal. However, for patients who are still in mild withdrawal after treatment (i.e., CIWA-Ar 1–10), an **outpatient prescription** for gabapentin may be given at discharge to complete treatment. Gabapentin has several advantages over benzodiazepines as a discharge medication; it is less sedating, has a lower misuse potential, appears to be non-lethal in overdose, and can be used as a long-term anti-craving medication, particularly in patients who experience anxiety and/or ongoing mild withdrawal symptoms (49, 50). The recommended dose for gabapentin in the context of alcohol withdrawal is 300 mg three times daily. Gabapentin can be increased to 600 mg three times daily and 600–1200 mg at bedtime if required and as long as there is no sedation, to a maximum of 3600 mg daily. Gabapentin can cause sedation or dizziness, and the risk is increased when combined with other sedating medications or alcohol; consider a lower dose (100 mg three times daily) for patients who are elderly, on other sedating medications, or with renal dysfunction.

Whenever possible, withdrawal should be fully managed in the ED, and benzodiazepines should not be required upon discharge. Patients being discharged with benzodiazepines is discouraged, as some patients resume drinking while taking them. Consider reserving this treatment for patients being discharged to a setting where it is clear that they will not be drinking, such as a withdrawal management service. Dispensing to a reliable support person or daily pharmacy dispensing can also be considered if the patient is being discharged to a home setting. A rapid taper is recommended, e.g., diazepam 10 mg or lorazepam 2 mg four times daily on day 1, three times daily on day 2, and twice daily on day 3. The patient should be advised that if they resume drinking, they should stop the benzodiazepines and follow up at outpatient addiction service, even if their withdrawal symptoms have resolved.[4]

G3. Ensure underlying medical conditions are ruled out prior to discharge.

Patients must be reassessed once the intoxication is resolved and withdrawal is treated to ensure other medical conditions are treated. Ensure vitals are repeated and stable prior to discharge. A complete assessment can be difficult while a patient is in withdrawal or intoxicated, but these patients are at risk of harm if their health conditions go unaddressed at discharge.

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[4] The author group could not come to full consensus about whether a benzodiazepine prescription is ever appropriate on discharge.

G4. Arrange referrals to outpatient treatment services.

Before discharge, patients should be given connections to outpatient alcohol use disorder treatment. Research indicates that treatment engagement is maximized if follow-up occurs rapidly (51), ideally within 48 hours of referral from the ED (52). **Rapid access addiction medicine (RAAM) clinics**, which provide low-barrier addiction care including pharmacotherapy, brief counseling, and referrals to community services, are available in many cities and towns across Ontario, and patients can attend during drop-in hours without an appointment or formal referral. Clinicians should inform patients about the location and drop-in hours of the nearest RAAM clinic (and/or other local services) and advise them to attend (i.e., "You should go to the clinic tomorrow at 9:00").

Withdrawal management services are an appropriate bridge from hospital to community services. They offer a safe place to stay and staff to monitor their condition, and so can be appropriate for patients without a fixed address, a safe place to stay, a supportive environment, or support persons. They may be able to provide ongoing pharmacological support for withdrawal, mental health, and other minor health conditions. They often provide social work, peer support, and counselling services.

Other local addiction resources can be found at **ConnexOntario**.

Patients should also be advised to follow up with their primary care providers.

G5. Offer a prescription for an anti-craving medication such as naltrexone, acamprosate, and/or gabapentin.

For patients with moderate to severe alcohol use disorder, pharmacotherapy in addition to psychosocial interventions is the most evidence-based approach to care. There is growing consensus that medications for substance use disorders should be implemented in any setting where patients seek care.

The first-line medications for alcohol use disorder are naltrexone and acamprosate (53). Naltrexone is a competitive opioid antagonist that blunts the euphoric, reinforcing effects of alcohol. Acamprosate acts on the glutamate system to minimize symptoms of ongoing mild alcohol withdrawal, such as cravings, insomnia, and dysphoria. Naltrexone is preferred for most patients in the ED setting; naltrexone is effective even if the patient continues to drink, whereas acamprosate is most effective if the patient is abstinent. Naltrexone can be prescribed to patients with elevated transaminases in the absence of hepatic dysfunction. Naltrexone should be prescribed as 50 mg once daily for 14 days to ensure medication access in case the patient does not attend early follow-up; a longer prescription should be provided if there is a lack of available community follow-up (e.g., with a primary care provider or a RAAM clinic). Naltrexone is available on the Ontario Drug Benefit (ODB) formulary with LU code 532. Acamprosate should be offered to patients with advanced liver disease, intolerance or contraindications to naltrexone, or who are taking opioids. Acamprosate should be prescribed as 666 mg (two 333 mg tablets) three times daily for 14 days; patients can start on a lower dose of one tablet three times daily to minimize diarrhea. For patients with creatinine clearance between 30 and 50 ml/min, prescribe 333 mg (one tablet) three times daily Acamprosate is available on the ODB formulary with LU code 531.

As an alternative or adjunct to naltrexone or acamprosate, numerous studies have shown gabapentin to be effective in treating alcohol use disorder (54), particularly in combination with a first-line agent, although the evidence is less robust than for naltrexone and acamprosate. Gabapentin has been associated with delay in return to heavy drinking, reduced cravings, and improved mood and sleep. Gabapentin also provides benefit for mild alcohol withdrawal symptoms but is not supported in preventing withdrawal seizures and is not indicated for moderate or severe withdrawal. Gabapentin is less expensive than naltrexone and acamprosate and thus may be a good option for patients who do not have drug insurance coverage. Gabapentin can be written as 300 mg three times daily for two weeks; higher doses are likely more effective in supporting abstinence and can be titrated upward after discharge. Lower doses (100 mg three times daily) should be used in patients who are elderly, on other sedating medications, or with renal dysfunction.

H. QUALITY IMPROVEMENT

H1. We recommend the CIWA-Ar as the withdrawal scale with the strongest evidence-base and most widespread use. Other brief monitoring scales can be used in its place. The choice of scale should include nursing input.

The Clinical Institute Withdrawal Assessment for Alcohol, revised (CIWA-Ar) is the original validated withdrawal scale (55), and it has by far the greatest evidence for reliability and validity (56). It is the standard scale used in research studies and in most alcohol treatment centres. However, the CIWA-Ar can be unreliable because six of the ten items are based on subjective symptoms, such as anxiety, headache, and nausea. False negatives can occur if patients underreport their symptoms (15, 57), or if there are language barriers, cognitive deficits, dementia, or impaired consciousness (57, 58).

An alternative to the CIWA-Ar is the Brief Alcohol Withdrawal Scale (BAWS), which is shorter and quicker to administer and thus may be more practical in the ED setting. Patients in moderate to severe alcohol withdrawal require frequent benzodiazepine dosing, and busy ED nurses find it extremely difficult to devote five minutes every hour doing the CIWA-Ar on one patient (15), leading to delays and possible undertreatment. The BAWS consists of five items: sweating, tremor, hallucinations, orientation, and agitation. Each item is graded from 0 to 3; a score of 3 or above indicates the need for treatment. The BAWS was evaluated in a study involving 688 patients admitted to an academic American hospital (59); it was found to have a sensitivity of 85% and a specificity of 66% relative to the CIWA cut-off score. There have been no studies examining BAWS performance in an ED setting.

The choice of withdrawal scale should be made by a committee composed of ED clinicians with adequate representation from ED nurses.

H2. Staff should receive training in the withdrawal scale used by the ED.

Training has been shown to markedly enhance the accuracy and clinical value of the CIWA-Ar scale. Ensuring that all staff receive training in the withdrawal scale used by the ED can improve its accuracy and possibly reduce the time it takes to administer.

H3. Patients with repeat visits for alcohol-related presentations require higher levels of intervention.

There is an increasing risk of one-year mortality with repeated visits to the ED for alcohol withdrawal (7, 8). Clinicians may interpret a patient's repeat alcohol-related ED visits as failure or as drug-seeking behaviour, leading them to provide inadequate treatment. However, not meeting an ED patient's substance-related needs increases the likelihood of return visits, increasing ED burden and overall healthcare costs (9). Undertreatment of withdrawal is one example of this cycle, where a person may return to drinking to alleviate withdrawal symptoms, leading to return ED visits.

Each care episode is an opportunity for positive change. A BNI will help the clinician to explore the patient's reason for the visit, discuss their current goals, and help direct their future actions. Patients that are seen more than once a year for an alcohol-related presentation should have their increased health risks explained to them if necessary. External causes like accidents and suicide are leading causes of mortality in this group (8), and mental health assessments, with suicide screening, should be completed at each visit. Follow-up with a RAAM clinic should be encouraged, as RAAM clinic attendance has been shown to reduce 30-day ED visits (60), and anti-craving medications should be offered at each visit. Repeat visits should also trigger development of a patient-specific care plan including the patient's treatment goals and steps for ongoing care management. Care plans should be developed in consultation with the patient, can be initiated by any team member, and should be shared with all hospital and community care partners.

H4. All EDs should implement policies and practices that are based on the principles of harm reduction, including reducing stigma around alcohol-related presentations.

Patients that return to the ED with a mental health or substance-related concern often do so reluctantly, due to previous experiences of stigma and not having their needs met (61). To improve the patient experience, department-based policies and practices focused on harm and stigma reduction should be introduced. The goal of harm reduction is to mitigate the negative consequences of behaviours (such as substance use) without requiring the cessation of these behaviours (e.g., avoid combining alcohol with other sedating substances such as benzodiazepines, have only one drink per hour, drink in a safe environment, etc.). Harm reduction–based practices reduce the experience of stigma through a lack of judgment and coercion, and they centre the individual in the provision of care. **The principles of harm reduction** should be used to educate ED staff, change the environment, and set a standard for appropriate patient care. There is growing evidence for the benefits of having people with lived experience, such as peer support workers, being directly involved in ED patient care from greeting to discharge and guiding cultural change (62-64).

H5. The ED should have pathways to other local substance use services.

EDs should work to establish relationships with specific local community partners (e.g., withdrawal management, outpatient addiction and support services such as RAAM clinics, etc.) in order to facilitate referral pathways and provide appropriate information and support to patients. Having this information readily available helps ease any clinician stress or uncertainty with a substance-related visit and ensures the patient has access to appropriate support options. A dedicated ED substance-use champion can help build these connections and ensure information is disseminated to staff effectively.

H6. All ED clinicians should undergo training specific to alcohol-related presentations.

Unfortunately, substance use treatment is still largely overlooked by many educational institutions, and EDs should not assume that clinicians have prior training or knowledge in best practices for alcohol-related presentations. All staff should undergo training exploring the top ten alcohol-related presentations, how to identify and (if appropriate) assess alcohol withdrawal, how to conduct a BNI, and what local resources are available for referral. This training should include an emphasis on **stigma-reducing language and practices**.

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Summary of Recommendations on the Management of Selected Alcohol-Related Presentations in the Emergency Department

Alcohol-related emergency department (ED) visits are increasingly common, and patients visiting the ED for an alcohol-related reason are at high risk for death. Screen for alcohol use disorder (AUD) or high-risk drinking in patients with common alcohol-related ED presentations: Alcohol intoxication, withdrawal (including seizures), trauma (e.g., accident, assault), cardiac issues (such as chest pain or arrhythmias), hepatic and extra-hepatic sequelae (e.g., ascites), gastro-intestinal issues (such as pancreatitis or gastritis), psychiatric conditions (such as self-harm or suicidal ideation), "feeling unwell", or repeat ED visits.

DISPOSITION FOR PATIENTS SEEKING ALCOHOL CESSATION

An intoxicated patient with a history of seizures or DTs seeking alcohol cessation should be held until they can safely be provided with loading doses before discharge. Ideally, withdrawal management will start in the ED for all patients; however, intoxicated patients without a history of seizures or DTs and without major medical comorbidities can be transferred to a withdrawal management unit once the reason for their ED visit has been addressed. If considering a discharge home for a low-risk patient, ensure they have a reliable support person to monitor them.

MONITORING

The **CIWA-Ar** is a well validated scale that can be used to monitor alcohol withdrawal in a frequency that matches the severity of the patient's symptoms:

- CIWA-Ar < 10 (mild withdrawal): q 60–120 min
- CIWA-Ar 10–19 (moderate withdrawal): q 60 min
- CIWA-Ar ≥ 20 (severe withdrawal): At minimum q 30–60 min

Definitive signs of severe withdrawal:

- Signs of autonomic hyperactivity: Profuse sweating, severe tremor, repeat vomiting, SBP > 180 DBP > 110, HR > 120 bpm, arrhythmia, T > 37.5 C
- Hallucinations, psychomotor agitation, confusion, disorientation, delusions, withdrawal seizures, DTs

EFFECTIVE TREATMENT OF WITHDRAWAL

Oral loading doses should be given to patients with a history of withdrawal seizures or DTs:

- Diazepam 20 mg PO OR lorazepam 4 mg PO every 1 hour x 3

Patients should be managed with **symptom-triggered treatment:**

- For CIWA ≥ 10 give diazepam 20 mg PO
- Patients presenting with severe withdrawal should be started with IV dosing
- Lorazepam 2–4 mg PO should be used in those with cirrhosis and when there is a higher risk for benzodiazepine toxicity, including the frail elderly, those on high doses of opioids, and those with liver or respiratory impairment
- Patients with decompensated cirrhosis or severe respiratory impairment require even lower lorazepam doses (i.e., 0.5–1 mg PO per dose)
- Lower oral doses can be used with clinical judgment (e.g., no definitive signs of alcohol withdrawal such as tremor are yet present)

If no response after diazepam 80 mg or lorazepam 16 mg, consider the following:

- Double the oral dose: Diazepam 40 mg PO per dose or lorazepam 8 mg PO per dose
- IV dosing: Diazepam 10 mg IV or lorazepam 2 mg IV every 10 minutes
- Phenobarbital

Lower IV doses of lorazepam should be used if the patient is at high risk for benzodiazepine toxicity.

DISCHARGE PRESCRIPTIONS FOR WITHDRAWAL

If CIWA-Ar < 10 on 2 consecutive assessments, an outpatient script for withdrawal management is not needed as diazepam has a long duration of action.

If patient is still in mild withdrawal on discharge, consider gabapentin 300 mg PO three times daily for 14 days.

If diazepam or lorazepam is prescribed, consider a short prescription (i.e., 2–3 days) with daily dispensing or dispensing to a support person.

ANTI-CRAVING MEDICATIONS

Offer all patients **naltrexone**, **acamprosate**, and/or **gabapentin**.

Naltrexone is indicated for most patients. Acamprosate is useful when a patient has liver dysfunction or opioid use. Gabapentin is useful when there is no medication coverage or if the patient has ongoing withdrawal at discharge.

BRIEF INTERVENTIONS FOR ALCOHOL USE

Engage in a brief negotiated interview (**BNI**) with patients with alcohol-related presentations:

1. Establish rapport and ask permission to discuss alcohol consumption and its possible consequences.
2. Provide feedback on the patient's drinking levels and make a connection to the ED visit.
3. Enhance motivation to reduce drinking by asking how ready on a scale of 1–10 the patient is to change any aspect of their drinking.
4. Negotiate goals and advise a plan of action.

Connection to community addiction services

Connect the patient to a peer support worker, social worker, substance use navigator, addiction service worker, mental health counselor, or health promotion advocate if available.

Arrange follow-up care: RAAM clinic, primary care, withdrawal management, psychiatric services, etc.

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, proceeded 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 Hallucinosis

- 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.

Order Set for Alcohol Withdrawal

GENERAL

Supports

- ☐ Offer on-site connection with peer worker or addiction service worker if available
- ☐ Initiate hospital suicide/self-harm assessment

Monitoring[1,2]

- ☐ Temp, HR, RR, BP, and O2 saturation at baseline and q 2 H or with each CIWA-Ar assessment
- ☐ With intoxication, begin CIWA-Ar with patient's earliest recognition of withdrawal or 6 H from last drink
- ☐ Baseline CIWA-Ar, then:
  - ☐ CIWA-Ar at minimum q 30–60 min for CIWA-Ar ≥ 20 (severe withdrawal)
  - ☐ CIWA-Ar q 60 min for CIWA-Ar 10–19 (moderate withdrawal)
  - ☐ CIWA-Ar q 60–120 min for CIWA-Ar < 10 (mild withdrawal)
  - ☐ Transfer patients to a cardiac-monitored bed for CIWA ≥ 20 and/or definitive signs of severe withdrawal: SBP > 180 DBP > 110, HR > 120 bpm, T > 37.5 C, arrhythmia, profuse sweating, repeat vomiting, severe withdrawal tremor, hallucinations, psychomotor agitation, confusion, disorientation, delusions, withdrawal seizures, or DTs
  - ☐ Discontinue CIWA-Ar when CIWA-Ar < 10 x 2 consecutive reassessments at least one hour apart

Testing[3]

- ☐ ECG
- ☐ Serum ethanol, CBC, electrolytes (Na+, K+, Cl-, HCO3--, Mg2+, PO43-, Ca2+), creatinine, glucose, GGT, AST, ALT, ALP, bilirubin, albumin, INR
- ☐ Serum/urine BHCG
- ☐ Urine drug screen/serum toxicology

Fluids

- ☐ Saline lock
- ☐ IV fluids _____ at _____ ml/hr

Thiamine[4]

- ☐ Thiamine 300 mg IM x 1
- ☐ Thiamine 300 mg IV x 1

WITHDRAWAL TREATMENT

Hold any dose if the patient shows signs of sedation (frequently drowsy, rousable, but drifts off to sleep during conversation)

Benzodiazepine loading doses[5]

For patients with a previous history of withdrawal seizures or DTs AND CIWA-Ar ≥ 10 OR at least 6 H from last drink (i.e., no longer intoxicated and entering withdrawal):[6]

- ☐ Diazepam 20 mg PO q 1 H x 3
- ☐ Lorazepam 4 mg PO q 1 H x 3
- ☐ Continue with symptom-triggered treatment after loading doses are completed

If there is concern about the risk of oversedation, consider starting with a test dose of diazepam 10 mg or lorazepam 2 mg

Initial intravenous dosing[7]

For patients with initial presentation of CIWA-Ar ≥ 20 and definitive signs of severe withdrawal:

- ☐ Diazepam 10 mg IV q 10 min PRN, to max of 40 mg per hour
- ☐ Lorazepam 2 mg IV q 10 min PRN, to max of 10 mg per hour
- ☐ Continue with symptom-triggered treatment when CIWA-Ar < 20

Symptom-triggered treatment[2,6]

- ☐ Diazepam 20 mg PO q 1 H for CIWA-Ar ≥ 10 and/or definitive signs of severe withdrawal
- ☐ Lorazepam 4 mg PO q 1 H for CIWA-Ar ≥ 10 and/or definitive signs of severe withdrawal

If the patient does not yet show definitive signs of withdrawal (e.g., tremor) or is at risk for benzodiazepine toxicity, consider starting with lower doses:

- ☐ Diazepam 10 mg PO q 1 H for CIWA-Ar ≥ 10
- ☐ Lorazepam 2 mg PO q 1 H for CIWA-Ar ≥ 10
- ☐ Lorazepam 1 mg PO q 1 H for CIWA-Ar ≥ 10
- ☐ Lorazepam 0.5 mg PO q 1 H for CIWA-Ar ≥ 10

For severe withdrawal worsening or not improving despite diazepam 80 mg/lorazepam 16 mg over four hours or less, double the dose of oral benzodiazepines or move to intravenous dosing[6,8]

- ☐ Diazepam 40 mg PO q 1 H
- ☐ Lorazepam 4 mg PO q 1 H
- ☐ Lorazepam 8 mg PO q 1 H
- ☐ Diazepam 10 mg IV q 10 min PRN, to max of 40 mg per hour
- ☐ Lorazepam 2 mg IV q 10 min PRN, to max of 10 mg per hour

DISCHARGE ORDERS

- ☐ WMS referral
- ☐ Community treatment clinic referral: _____
- ☐ **Thiamine** 100 mg PO once daily x 4 weeks
- ☐ Offer **anti-craving prescription** and advise patient to attend community treatment clinic or primary care for ongoing prescription:
  - ☐ **Naltrexone** 50 mg PO once daily x 14 days, LU code 532
  - ☐ **Acamprosate** 666 mg PO three times daily x 14 days, LU code 531
  - ☐ **Acamprosate** 333 mg PO three times daily x 14 days (if CrCl 30–50 ml/min), LU code 531
  - ☐ **Gabapentin** 300 mg PO three times daily x 14 days
- ☐ Fax summary to appropriate clinic(s) and community providers

If patient is still in mild withdrawal upon discharge:

- ☐ Prescribe **gabapentin**

  OR
- ☐ Prescribe tapering doses of **diazepam** or **lorazepam**

Name _____ Signature _____

Prescriber ID _____

Date _____ Time _____

NOTES

[1] Withdrawal is likely for patients with (a) a history of withdrawal, and (b) consumption of at least five standard drinks per day for at least one week consecutively. Withdrawal symptoms typically present six to twelve hours after the last drink. Starting six hours after the last drink, administer the CIWA-Ar q 2 H, and symptom-triggered treatment should be started for CIWA-Ar ≥ 10. Patients that are likely to experience withdrawal but do not have a history of withdrawal seizures or delirium tremens (DTs) can be considered for transfer to a withdrawal management service.

[2] If any of the following are present during alcohol withdrawal, they should be treated as definitive signs of severe withdrawal: SBP > 180 DBP > 110, HR > 120 bpm, T > 37.5 C, arrhythmia, profuse sweating, repeat vomiting, severe withdrawal tremor, hallucinations, psychomotor agitation, confusion, disorientation, delusions, withdrawal seizures, or DTs.

[3] Laboratory tests, ECG, and IV should be initiated in most patients in moderate withdrawal, all patients in severe withdrawal, and those who have a history of severe withdrawal, withdrawal seizures, or DTs. BHCG is recommended for people who can become pregnant; pregnant people need immediate access to treatment. Serum toxicology or point-of-care urine drug screen should be considered for patients who may be using unregulated substances, especially opioids. Potent opioids such as fentanyl, taken either before admission or after discharge, can have dangerous interactions with high doses of benzodiazepines.

[4] All patients in withdrawal should receive thiamine as prophylaxis for Wernicke's syndrome. Because of poor gastric absorption, IM and IV are the preferred route of administration. If D5W IV solution or oral glucose solution is to be given, efforts should be made to give thiamine first. Administering glucose before thiamine could trigger Wernicke's if the patient is already deficient in thiamine, as glucose metabolism requires thiamine as a co-factor. If the patient is dangerously hypoglycemic, do not delay giving glucose, but give thiamine as soon as possible afterwards.

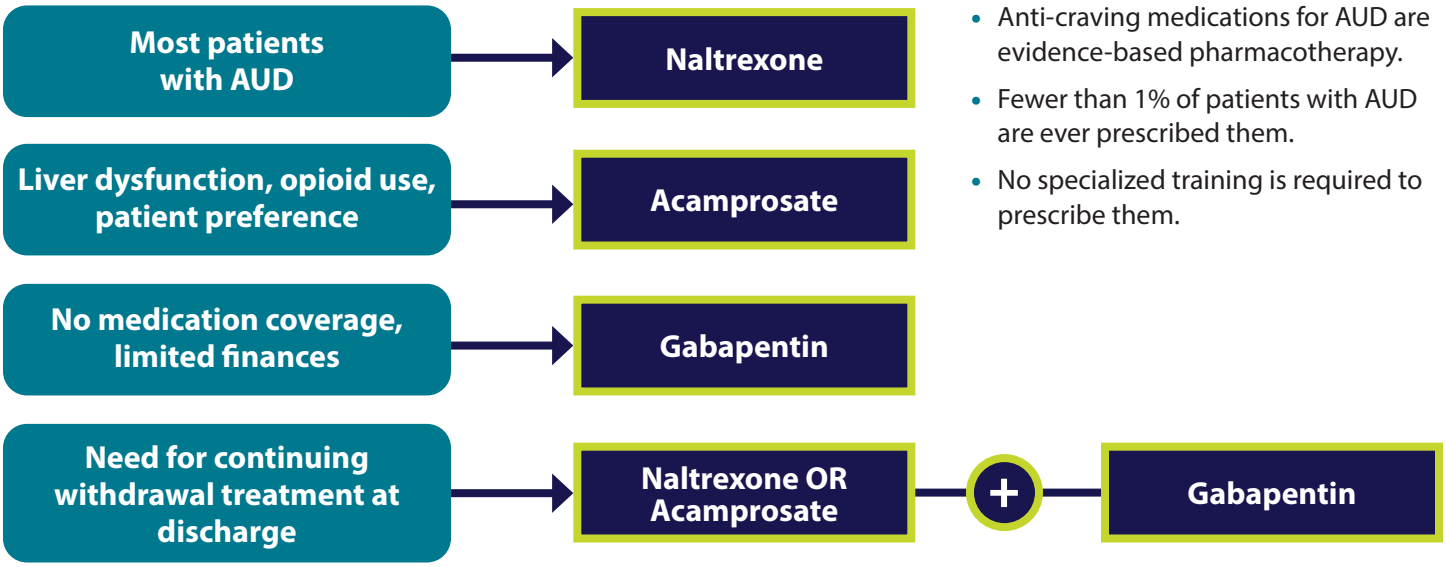
[5] Lorazepam is preferred over diazepam for patients with cirrhosis and those who are at higher risk for benzodiazepine toxicity, i.e., the frail elderly, those on high-dose opioids, and those with respiratory or hepatic impairment. The lorazepam dose depends on the degree of risk. Lower lorazepam doses should be used for patients with decompensated cirrhosis and severe respiratory impairment. Patients requiring lorazepam should have prolonged monitoring to ensure withdrawal and risk of complications do not return as the dosing wears off.

[6] Because the course of withdrawal is predictable based on previous withdrawal presentations, loading doses should be given to those with a history of withdrawal seizures or DTs. Loading doses should be given as early as possible but should not be started until the patient is either in early withdrawal, i.e., CIWA ≥ 10, or anticipated to be in withdrawal, i.e., at least six hours after the last drink. Check on the patient after each dose to ensure that they are not sedated and that their withdrawal is resolving; discontinue loading doses if the patient is showing signs of sedation.

[7] Regardless of history, patients with CIWA-Ar ≥ 20 with definitive signs of severe withdrawal on initial presentation can be initiated on intravenous dosing, as it has a rapid onset of action and oral dosing may be challenging (e.g., in patients that are agitated or vomiting). There are benefits to the rapid onset of action in patients who have cardiovascular instability (severe hypertension, tachycardia, arrhythmia) and in patients showing early signs of DTs (agitation, confusion, delusions, hallucinations). IV dosing can continue until the patient is no longer in severe withdrawal, at which point oral symptom-triggered dosing can begin. Patients with a history of withdrawal seizures or DTs should still be provided with the cumulative dosing that would occur with loading doses.

[8] IV dosing is indicated for patients in severe or worsening withdrawal despite frequent dosing of benzodiazepines, particularly if the patient has not responded to frequent oral doses or double oral doses or if they show signs of cardiovascular instability (hypertension, tachycardia, arrhythmias) or early signs of DTs (agitation, confusion, delusions, hallucinations). Careful monitoring and frequent assessment is needed. These patients require cardiac-monitored beds with attention to respiratory rate, oxygen saturation, and sedation. If the patient shows marked improvement after an IV dose, reassess in 10–20 minutes; the patient can be switched back to oral dosing when their withdrawal is no longer severe. If the patient is at high risk for benzodiazepine toxicity, monitor closely, give lower doses, and consult with internal medicine for hospital admission. If the patient does not respond to IV dosing, consider phenobarbital.

Choosing an Anti-Craving Medication



- Anti-craving medications for AUD are evidence-based pharmacotherapy.
- Fewer than 1% of patients with AUD are ever prescribed them.
- No specialized training is required to prescribe them.

NALTREXONE

- Reduces drinking euphoria, promotes abstinence, reduces heavy drinking days.
- 50 mg PO once daily x 14 days, LU code 532

Contraindications: Taking opioids (it is a mu opioid antagonist and will precipitate withdrawal), known allergy, or acute hepatitis or liver failure (hepatic dysfunction, encephalopathy)

Usual side effect: Fatigue, headache, mild GI upset (settles over time)

ACAMPROSATE

- Relieves ongoing mild withdrawal symptoms (insomnia, dysphoria, cravings).
- Most effective when started a few days into abstinence.
- 666 mg PO three times daily x 14 days (333 mg if CrCl 30–50 ml/min), LU code 531

Contraindications: Severe renal impairment (CrCl < 30), known allergy, nursing

Usual side effect: Diarrhea (can start/stay on lower dose, but settles over time)

GABAPENTIN (off-label use)

- Relieves mild and/or ongoing withdrawal, promotes abstinence.
- Commonly prescribed with naltrexone or acamprosate.
- 300 mg PO three times daily x 14 days

Caution: Can cause sedation/dizziness. Higher risk when combined with other sedating medications/alcohol. Consider lower dose (100 mg PO three times daily) if elderly, on other sedating medications, or renal dysfunction.

CONSIDER A SPECIALIST CONSULT FOR PREGNANT PATIENTS TO DISCUSS THE RISKS AND BENEFITS OF TREATMENT WITH EACH OF THESE MEDICATIONS.

Approach to ED Patients With Alcohol-Related Presentations

Patient presents to ED with alcohol use disorder/presentation associated with high-risk alcohol use:

- Alcohol intoxication
- Alcohol withdrawal (including seizures)
- Trauma (e.g., accident, assault)
- Chest pains/arrhythmias
- Hepatic and extra-hepatic sequelae (e.g., ascites)
- GI issues (e.g., pancreatitis, gastritis)
- Psychiatric conditions (e.g., self-harm, suicidal ideation)
- "Unwell"
- Repeat ED visits

- Treat presenting condition(s)
- Perform **brief negotiated interview**: Is the patient's presenting condition likely connected to their alcohol use?

Does the patient have a current goal of alcohol cessation OR will be in the ED long enough that they will experience alcohol withdrawal?

YES

Consider the appropriate **treatment and discharge setting**:

- ED: History of seizures, DTs, withdrawal requiring hospital admission, comorbidities (concurrent unstable or complex medical or psychiatric conditions, pregnancy)
- Home: Patient has a safe space, capable of self-care or has a support person available
- WMS: Patient does not have a safe space, requires additional support or monitoring

NO

Offer on-site connections or community referrals for AUD or high-risk drinking

ED WITHDRAWAL MANAGEMENT

Does the patient have a history of withdrawal seizures/DTs?

YES

- Initiate oral benzodiazepine loading doses when CIWA-Ar ≥ 10 OR at least 6 hours after last drink:
  - Patients at risk for benzodiazepine toxicity/sedation or without definitive signs of withdrawal: Diazepam 10 mg OR lorazepam 2 mg
  - All other patients: Diazepam 20 mg OR lorazepam 4 mg q 1 H x 3
  - Monitor for sedation before each dose
- Initiate symptom-triggered treatment after loading doses are administered

NO

- Initiate symptom-triggered treatment for CIWA-Ar ≥ 10:
  - Patients at risk for benzodiazepine toxicity/sedation or without definitive signs of withdrawal: Diazepam 10 mg OR lorazepam 1–2 mg PO q 1 H
  - All other patients: Diazepam 20 mg OR lorazepam 4 mg PO q 1 H
- Discontinue protocol when CIWA-Ar < 10 x 2
- For withdrawal worsening OR not responding after diazepam 80 mg/lorazepam 16 mg over 4 H or less:
  - Double the oral benzodiazepine dose (diazepam 40 mg/lorazepam 4–8 mg q 1 H) OR move to IV dosing as per severe withdrawal

Is the patient in severe withdrawal?

NO

YES

- Initiate IV benzodiazepines:
  - Diazepam 10 mg OR lorazepam 2 mg q 10 min
- Initiate cardiac monitoring and correct electrolyte imbalances
- When no longer in severe withdrawal, initiate symptom-triggered oral treatment
- For severe withdrawal not responding to IV benzodiazepines, consider phenobarbital and initiate referral for admission

For all patients:

- Connect with ED substance use navigator/peer worker if available
- Provide thiamine 300 mg IM or IV
- Discharge prescriptions:
  - **Anti-craving medication** (**naltrexone**, **acamprosate**, and/or **gabapentin**)
  - **Thiamine** 100 mg OD x 30 days
  - Consider outpatient **gabapentin** or **benzodiazepine** if withdrawal is expected to last after ED treatment
- Recommend follow-up with primary care provider and/or community substance use clinic
- Send **naltrexone**, **acamprosate**, and/or **gabapentin** discharge information for primary care
- Provide **patient handout**

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Alcohol Withdrawal Management Rx

Emergency Department/Address: _____ **Phone:** _____

PATIENT DEMOGRAPHIC INFORMATION	
Name	
Health Care #	
DOB	
Phone Number	
Patient Address	
Primary Care Provider	

Date: _____

☐ Gabapentin 300 mg capsule
Take 1 capsule by mouth 3 times daily for 14 days.
Mitte: 42 tablets
Refills: 0

☐ Diazepam 10 mg tablet
Day 1: Take 1 tablet by mouth 4 times daily.
Day 2: Take 1 tablet by mouth 3 times daily.
Day 3: Take 1 tablet by mouth twice daily.
Mitte: 9 tablets
Refills: 0

☐ Lorazepam 2 mg tablet
Day 1: Take 1 tablet by mouth 4 times daily.
Day 2: Take 1 tablet by mouth 3 times daily.
Day 3: Take 1 tablet by mouth twice daily.
Mitte: 9 tablets
Refills: 0

☐ Thiamine 100 mg once daily
Mitte: 30 tablets
Refills: 0

Prescriber Name: _____ **License Number:** _____

Prescriber Signature: _____

ED Naltrexone, Gabapentin, & Acamprosate Rx

Emergency Department/Address: _____ **Phone:**_____

PATIENT DEMOGRAPHIC INFORMATION	
Name	
Health Care #	
DOB	
Phone Number	
Patient Address	
Primary Care Provider	

Date: _____

☐ Naltrexone 50 mg
One tablet by mouth once daily for 14 days.
Mitte: 14 tablets
Refills: 0
LU 532

☐ Acamprosate 333 mg
Two tablets by mouth three times daily for 14 days.
Mitte: 84 tablets
Refills: 0
LU 531

☐ Acamprosate 333 mg
One tablet by mouth three times daily for 14 days for CrCl 30–50 ml/min.
Mitte: 42 tablets
Refills: 0
LU 531

☐ Gabapentin 300 mg capsule
One capsule by mouth three times daily for 14 days.
Mitte: 42 tablets
Refills: 0

☐ Thiamine 100 mg once daily
Mitte: 30 tablets
Refills: 0

Prescriber Name: _____ **License Number:** _____

Prescriber Signature: _____

Naltrexone Discharge Information for Primary Care

Date: _____

Patient: _____

Dear _____

This patient has been started on **naltrexone** as an anti-craving medication for alcohol use disorder (AUD).

Naltrexone is an opioid receptor antagonist (blocker). **Naltrexone and acamprosate are the two first-line treatments for AUD;** neither medication makes people ill if they drink alcohol. Naltrexone is compatible with a range of drinking goals (i.e., abstinence or reduced drinking) and is appropriate for patients who do not use opioids or have severe liver disease. It works by reducing the euphoric effects of alcohol, which helps to curb alcohol cravings and consumption.

Naltrexone is provided in 50 mg oral tablets. The dose can be titrated to effect, with a maximum daily dose of 150 mg. If a patient continues to drink while on naltrexone, advise them to take their dose one hour before alcohol consumption for maximum benefit. Possible side effects include fatigue, headache, and stomach upset. These side effects typically dissipate after a few days of use; if they persist, consider reducing the daily dose to 25 mg. Naltrexone is covered by ODB with LU code 532.

Therapeutic results are best when this medication is combined with counselling and/or community support.

Please keep the following considerations in mind:

- Concurrent use of naltrexone and opioids is contraindicated; naltrexone will displace opioids at the mu receptor, resulting in opioid withdrawal symptoms. When patients receiving naltrexone require opioids for analgesia, naltrexone should be discontinued one to two days before opioid use and restarted seven days after the last opioid dose to prevent precipitated withdrawal.
- Naltrexone is metabolized by the liver; for patients with suspected liver disease, liver enzymes should be checked at baseline and one month after initiation. If liver enzymes rise more than three times above baseline level, consider hepatic consultation and/or alternative medication (e.g., acamprosate and/or gabapentin).
- Naltrexone can be continued as long as it is effective and tolerated. An alternative to daily use for people who have achieved stability with their alcohol use is to take naltrexone on an "as-needed" basis for cravings or specific events.

Please see the attached prescription that the patient was given on discharge. For ongoing substance-related support, please contact your local rapid access addiction medicine (RAAM) clinic at _____ .

Sincerely,

Phone: _____ Fax: _____

Acamprosate Discharge Information for Primary Care

Date: _____

Patient: _____

Dear _____

This patient has been started on **acamprosate** as an anti-craving medication for alcohol use disorder (AUD).

Acamprosate is a GABA agonist and NMDA glutamate antagonist. **Acamprosate and naltrexone are the two first-line treatments for AUD;** neither medication makes people ill if they drink alcohol. Acamprosate is typically used with people who are seeking to stop rather than reduce their drinking. It is an alternative to naltrexone for patients who use opioids, have severe liver disease, or do not tolerate naltrexone. Acamprosate relieves mild ongoing acute withdrawal symptoms such as insomnia, dysphoria, and cravings. It works best in patients who are abstinent from alcohol for one to two days before starting it.

Acamprosate is provided in 333 mg tablets. It is usually started as 333 mg (one tab) three times daily and titrated to 666 mg (two tabs) three times daily over one week to minimize side effects. Common dose-related side effects experienced on this medication include diarrhea, fatigue, and anxiety. These are likely to resolve over time; if they persist, consider a dose reduction (one tab three times daily). Acamprosate is covered by ODB with LU code 531.

Therapeutic results are best when this medication is combined with counselling and/or community support.

Please keep the following considerations in mind:

- It is safe to consume alcohol while taking acamprosate, although its benefits (relief of insomnia, dysphoria, and cravings) are only felt if the patient is abstinent.
- Monitor patients with depression closely for suicidal thoughts and attempts at initiation (rare).
- Acamprosate is renally cleared; monitor kidney function tests at baseline and one month after initiation. Reduce dose to 333 mg three times daily if CrCl is 30–50 ml/min. Avoid use if CrCL is < 30 ml/min.
- Acamprosate can be continued as long as it is effective and tolerated.

Please see the attached prescription that the patient was given on discharge. For ongoing substance-related support, please contact your local rapid access addiction medicine (RAAM) clinic at _____ .

Sincerely,

Phone: _____ Fax: _____

Gabapentin Discharge Information for Primary Care

Date: _____

Patient: _____

Dear _____

This patient has been started on **gabapentin** as an anti-craving medication for alcohol use disorder (AUD).

Gabapentin is an anti-convulsant that is commonly used as an off-label treatment in AUD.

Gabapentin is used to treat acute alcohol withdrawal in people without a history of withdrawal seizures or delirium tremens, manage post-acute withdrawal symptoms, and as an anti-craving medication. It works by reducing the hyper-excitatory neurological symptoms of acute alcohol withdrawal, including tremor and anxiety, and symptoms of post-acute withdrawal syndrome such as dysphoria and insomnia that can last for weeks. As an anti-craving agent, gabapentin reduces heavy drinking days and increases non-drinking days. It can be useful for individuals who cannot take or have not benefited from naltrexone or acamprosate, or it can be used as an add-on to these medications.

Gabapentin is available in 100 mg, 300 mg, and 400 mg capsules. Gabapentin may be started for acute withdrawal management at doses of 300 mg three times daily. It can then be increased to 600 mg three times daily and 600–1200 mg at bedtime if required and as long as there is no sedation, to a maximum of 3600 mg daily. Once acute withdrawal is resolved, this dose can be tapered over three to five days or maintained at 300–600 mg three times daily (consider a dose of 100 mg three times daily for patients who are elderly, on sedating medications, or with renal insufficiency). Common side effects of gabapentin include dizziness, drowsiness, fatigue, and ataxia.

Therapeutic results are best when this medication is combined with counselling and/or community support.

Please keep the following considerations in mind:

- Alcohol and gabapentin are CNS depressants; patients should be counselled about potential risks of this combination with regards to sedation, falls, and driving.
- Gabapentin should not be prescribed to individuals experiencing active, persistent suicidal ideation.
- There should be continual evaluation for risks or signs of addiction with gabapentin use.
- Gabapentin can be continued as long as it is effective and tolerated. This medication should be tapered before discontinuation.

Please see the attached prescription that the patient was given on discharge. For ongoing substance-related support, please contact your local rapid access addiction medicine (RAAM) clinic at _____ .

Sincerely,

Phone: _____ Fax: _____

THINKING ABOUT DRINKING: Risky Drinking, Alcohol Use Disorder, and What You Can Do

THE WAY PEOPLE DRINK CAN BE DESCRIBED ON A SPECTRUM.

NO DRINKING

LOW-RISK DRINKING

Drinking that probably won't be harmful to yourself or other people

RISKY DRINKING

A condition in which someone keeps drinking even though they know it's harming them

ALCOHOL USE DISORDER (AUD)

Higher chance that drinking might cause harm

Signs of risky drinking: Drinking most days, getting into fights or accidents while drinking, not sleeping well after drinking, getting hangovers often.

Signs of AUD: Having trouble controlling drinking, drinking even when you know it's harming you, spending a lot of time drinking and recovering from drinking, feel strong cravings to drink.

If any of these signs are familiar to you, **you're not alone**—lots of people struggle with their drinking. It can be very hard to accept that your drinking is causing problems, but help is available. Everyone deserves care, and there's no reason to be ashamed.

HOW DRINKING CAN BECOME A PROBLEM

In addition to the short-term consequences that can come from drinking, like hangovers, fights, or injuries, alcohol can have effects on your health over time. People can also develop **alcohol use disorder** (AUD), a condition in which someone has trouble stopping drinking even though they know that it's harming them. There are lots of reasons why this might happen, but it's especially common for people who have had **traumatic experiences** or who have a **family history** of addiction.

MAKING A CHANGE

Not everyone needs or wants to change their drinking. Some people may be thinking about making changes but not be ready. It's normal for people's goals to change over time. If you're interested in changing or stopping your drinking, you have many options! There's no one right way to make a change, and you can talk to people you trust, like family, friends, or a health care provider, to help you decide what would be best for you.

YOUR OPTIONS

Harm reduction is about finding ways to lower the risk of harm (1). For drinking, this might mean having fewer drinks per day, drinking fewer days per week, or drinking with others rather than drinking alone. There are apps you can use to help you set goals and change your drinking habits.

Mental health treatment can be helpful for people who drink to cope with depression, anxiety, trauma, or suicidal feelings. It's common for people to drink when they're feeling sad or anxious, but drinking actually does more harm to our mental health over time (2). The Connex Ontario website (**connexontario.ca/en-ca**) can help you find mental health services near you.

Withdrawal management ("detox") is an important step for people who get withdrawal symptoms (like sweating, shaking, or nausea) when they stop drinking. **It can be very dangerous to go through withdrawal by yourself**. Your health care provider can arrange a planned withdrawal, where you get support and medications for your symptoms until your withdrawal is over (3).

Anti-craving medications are safe and effective medicines that can help you meet your drinking goals. The most common anti-craving medications are naltrexone, acamprosate, and gabapentin. Which medication to take depends on your drinking goals, other medications you're taking, and medical conditions you have. Your health care provider can help you decide which one would be best for you (4).

Peer support can be an important way to connect with people who understand what you're going through. Most people have heard of Alcoholics Anonymous, but many places also have local organizations that offer online and in-person peer support options. You can try different groups until you find one that feels right.

1. Harm reduction tips

2. More about alcohol and mood

3. More about withdrawal management

4. More about anti-craving medications

5. **metaphi.ca/raam-clinics/**

BE KIND TO YOURSELF

No matter what your drinking goals are, it's important to try to take care of yourself. This isn't always easy, but small steps matter! Here are some ideas of ways to practice self-care:

- Practice deep breathing and mindfulness (focus on right now, on purpose, without judgment). There are lots of smartphone mindfulness apps.
- Drink plenty of water and eat regular meals.
- Get moving safely and keep busy with a physical activity you enjoy, such as a brisk walk, running, swimming, biking, dancing, lifting weights, etc.
- Being **H**ungry, **A**ngry, **L**onely, or **T**ired (**HALT**) makes it harder to make good decisions. Try to avoid situations that make you vulnerable. Listen to your body and give yourself what you need.

YOU'RE NOT ALONE

If you're feeling overwhelmed or scared, try to remember that you're not alone. If you're not sure what to do next, going to a rapid access addiction medicine (**RAAM**) clinic might be a good step (5).

LOCAL RESOURCES:

People who use drugs and alcohol deserve care.

You're not alone.

Talk to us about substance use.

We're here to help.

You have **options** for care. Ask to talk to a health care provider about your substance use. Change can start **now**.

There's always hope.

Find a rapid access addiction medicine clinic near you.

https://www.metaphi.ca/raam-clinics

Watch a story of recovery.

https://www.youtube.com/watch?v=nCC44vcBMA8

Clinical Institute Withdrawal Assessment for Alcohol Revised (CIWA-Ar) Training Tool

Alcohol withdrawal can lead to poor patient outcomes including death if not assessed and managed properly. Emergency department (ED) staff are empowered and accountable for autonomously initiating the **CIWA-Ar tool (10-item standardized scale for assessing alcohol withdrawal)** when alcohol withdrawal symptoms are assessed.

Harm and stigma reduction = Changing our language: Due to stigma and negative connotations associated with the term *alcoholic*, remember to use *alcohol use disorder (AUD)* when speaking with your patient and documenting.

PEARLS OF RECOGNIZING ALCOHOL WITHDRAWAL

This is most likely in a person that reports heavy daily alcohol consumption with a recent reduction in use. Withdrawal patterns repeat themselves. If they have had severe withdrawal before, they are likely to have it again.

Signs and Symptoms:

- Nausea and/or vomiting
- Tremors
- Anxiety and/or agitation
- Paroxysmal sweats
- Disorientation
- Tactile, auditory, and/or visual disturbances
- Headache

Always wake the patient for the assessment. Withdrawal can progress while sleeping. If not fully awake, scoring may be low while withdrawal symptoms are actually more severe.

Alcohol withdrawal **tremor** is a postural-type tremor that occurs in the hands. It is not a resting tremor, as is seen in Parkinson's. In an alcohol withdrawal tremor, with the arms extended and fingers spread, you will see a tremor that is constant and does not fatigue.

Different withdrawal treatment and reassessment recommendations are required for each scoring range:

- < 10 Mild withdrawal
- 10-19 Moderate withdrawal
- ≥ 20 Severe withdrawal

Pharmacology Treatment:

Benzodiazepines treat the symptoms of alcohol withdrawal and prevent complications of alcohol withdrawal such as seizures. Diazepam is the drug of choice because of its long half-life (96 hours). Lorazepam is preferred in cases where patients have clinical evidence of severe liver dysfunction, severe respiratory impairment, in the elderly, and those on high doses of opioids. These medications can be administered orally or intravenously, with intravenous push being the quickest route to administer medication to a patient in severe withdrawal.

ED Reassessments:

Mild Withdrawal (CIWA-Ar score less than 10)	**Moderate Withdrawal** (CIWA-Ar score 10–19)	**Severe Withdrawal** (CIWA-Ar score greater than or equal to 20)
Reassess CIWA-Ar score and vital signs **q 60–120 mins**	**Reassess** CIWA-Ar score and vital signs **q 60 mins**	**Reassess** CIWA-Ar score and vital signs **at minimum q 30–60 mins**

CIWA-Ar Category	Tips for Accurately Scoring
Nausea/vomiting (0 – 7): 0 - none; 1 - mild nausea, no vomiting; 4 - intermittent nausea; 7 - constant nausea, frequent dry heaves & vomiting	**Ask:** "Do you feel sick to your stomach? Have you vomited?" **Examples:** Score 2 – patient may rate their nausea severe, but appears comfortable and is eating/drinking well Score 5 – patient reports nausea, has a bin/bag ready in case of vomiting, and may request an antiemetic
Tremors (0 – 7): 0 - no tremor; 1 - not visible but can be felt; 4 - moderate w/ arms extended; 7 - severe, even w/ arms not extended0	**Ask:** "Hold your arms out in front of you and spread your fingers apart." **Examples:** "Hold this glass of water in front of you, and then take a drink from it." Score 0 – able to complete task without tremor Score 1 or 2 – able to complete the task with fine tremor noticed Score 3 or 4 – able to complete the task with difficulty or some spilling, noticeable tremor Score 5 or 6 – difficulty completing the task, two hands used to hold the cup Score 7 – unable to complete the task, water may be spilt when holding the cup
Anxiety (0 – 7): 0 - none, at ease; 1 - mildly anxious; 4 - moderately anxious or guarded; 7 - equivalent to acute panic state	**Ask:** "On a scale 0 to 7, 0 being calm and 7 being a panic attack, how anxious are you feeling?" **Examples:** Score 2 – patient rates anxiety severe, but they appear calm and are cooperative, normal vital signs Score 5 – patient may be defensive and has difficulty concentrating on the conversation
Agitation (0 – 7): 0 - normal activity; 1 - somewhat normal activity; 4 - moderately fidgety/restless; 7 - paces or constantly thrashes about	*Though you may ask if they feel agitated, this is best observed in their activities.
Paroxysmal sweats (0 – 7): 0 - no sweats; 1 - barely perceptible sweating, palms moist; 4 - beads of sweat obvious on forehead; 7 - drenching sweat	*Paroxysmal means occurring periodically. If a patient is actively sweating, document the severity. If a patient is not actively sweating, document what they describe as their severity. **Examples:** Score 5 – "I was sweating on and off all night long" but not actively sweating Score 7 – Beads of sweat visible on forehead, shirt/gown drenched due to active sweating
Orientation (0 – 4): 0 - oriented; 1 - uncertain about date; 2 - disoriented to date by no more than 2 days; 3 - disoriented to date by > 2 days; 4 - disoriented to place and/or person	**Ask:** "Who am I? What year is it? Where are you right now?"
Tactile disturbances (0 – 7): 0 - none; 1 - very mild itch, P&N; 2 - mild itch, burning, P&N; 3 - moderate itch, P&N, burning; 4 - moderate hallucinations; 5 - severe hallucinations; 6 - extremely severe hallucinations; 7 - continuous hallucinations	**Ask:** "Do you have any itching, burning, numbness, pins/needles on your skin, that isn't usually there? Do you feel like bugs are crawling on/under your skin?" **Examples:** Score 2 – patient may be intermittently itching their skin Score 5 – seeing bugs on their skin, and continuously itching Score 7 – disturbed by seeing bugs on their skin and not being able to focus on the conversation
Auditory disturbances (0 – 7): 0 - not present; 1 - very mild harshness/ability to startle; 2 - mild harshness, ability to startle; 3 - moderate harshness, ability to startle; 4 - moderate hallucinations; 5 - severe hallucinations; 6 - extremely severe hallucinations; 7 - continuous hallucinations	**Ask:** "Is the sound of my voice bothering you? Are you hearing anything that you know isn't there?" **Examples:** Score 3 – patient reports sensitivity and is jumpy to noises like talking or doors shutting Score 4 – patient reports hearing things, but they are not bothered by it Score 7 – patient hears voices continuously, may respond to them, and cannot focus on the conversation
Visual disturbances (0 – 7): 0 - not present; 1 - very mild sensitivity; 2 - mild sensitivity; 3 - moderate sensitivity; 4 - moderate hallucinations; 5 - severe hallucinations; 6 - extremely severe hallucinations; 7 - continuous hallucinations	**Ask:** "Are you more bothered by the light than usual? Are you seeing colours differently? Are you seeing anything that you know isn't there? Are you seeing anything that is frightening or disturbing you?" **Examples:** Score 1 – patient complains of bright lights, but appears comfortable Score 4 – patient keeps their eyes closed or covered with hat/glasses Score 7 – patient is seeing other things/people, may be interacting with them, and cannot focus on the conversation
Headache (0 – 7): 0 - not present; 1 - very mild; 2 - mild; 3 - moderate; 4 - moderately severe; 5 - severe; 6 - very severe; 7 - extremely severe	**Ask:** "Does your head feel different? Do you have a tight band around your head? Do you have a headache?" *Do not rate dizziness or light-headedness. **Examples:** Score 1 – patient rates their headache moderate, but shows no discomfort Score 5 – patient reports a severe headache, appears uncomfortable, and may hold their head Score 7 – patient reports severe headache, unable to concentrate, keeps eyes closed, appears in pain, and holds their head

Brief Negotiated Interviews (BNI)

Patients attending the ED for issues related to alcohol use may be uniquely receptive to interventions regarding their drinking. Brief interventions have been shown to decrease alcohol consumption and alcohol-related consequences and increase client readiness to change when delivered to patients who screen positive for or present with clinical signs related to alcohol use.[1] Brief negotiated interviews (BNIs) can be delivered by any health care provider. Ideally, BNIs should be delivered in a private space after the person's presenting concerns have been addressed.

THE BNI HAS FOUR MAJOR COMPONENTS:

1. Establish rapport and ask permission to discuss alcohol consumption and its possible consequences.
2. Provide feedback on the patient's drinking levels and make a connection to the ED visit.
3. Enhance motivation to reduce drinking by asking how ready on a scale of 1–10 the patient is to change any aspect of their drinking.
4. Negotiate goals and advise a plan of action.

The elements of the BNI can be distilled to the following sample script:

- Is it okay with you if we take a few minutes to talk about your alcohol use? We routinely ask all patients with *<patient's presentation>*. Do you drink alcohol? *(If no, the conversation can be ended.)*
- On average, how many days per week do you drink alcohol?
- On a typical day when you drink, how many drinks do you have?
- Do you see any connection between your drinking and your visit here today?
  - *If patient sees connection, reiterate what patient has said.*
  - *If patient does not see connection, make one using facts.*
- Given what we've discussed, what's the next step with respect to your drinking? *Present options:*
  - Would you consider reducing your drinking? To what amount?
  - Are you interested in hearing about medication that can help people reduce their drinking?
  - Would you be open to a referral to a clinic that can provide additional supports?
- *Provide handouts and suggest follow-up with primary care or an addictions clinic.*

In addition, people with lived experience of alcohol use and ED attendance recommend offering help, engaging with the patient's family, and referring to a safe place to stay. They found the following language helpful to them:

- Are you sick and tired of being sick and tired?
- Give it 30 days and see how you feel.
- There is always hope.

[1] **https://www.jsatjournal.com/article/S0740-5472(15)00202-0/fulltext**

www.metaphi.ca