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Guidelines & Protocols Advisory Committee

High-Risk Drinking and Alcohol Use Disorder

Effective Date: February 21, 2024

Scope

Screening for alcohol use and alcohol use disorder (AUD) is important, given its impact on acute and chronic conditions, relationships, and other aspects of well-being. Evidence supports routine screening in primary care practice. This guideline aims to support clinicians in identifying and managing high-risk drinking (HRD) and AUD in adults and youth. This guideline adapts the British Columbia Centre on Substance Use's (BCCSU) Provincial Guideline for the Clinical Management of High-Risk Drinking and Alcohol Use Disorder (2019) and the Canadian Guideline for the Clinical Management of High-Risk Drinking and Alcohol Use Disorder (2023).

Key Recommendations

Practitioners should examine their preconceptions or biases regarding alcohol use, who uses it, and how it is used. Differentiate between high-risk alcohol use and alcohol use disorders. Consider how to investigate and communicate alcohol related diagnoses, being mindful of potential stigmatization and bias in care. See associated documents for examples.

Screening and Brief Intervention

1. Screen all patients routinely for alcohol use above low-risk limits. *[Certainty of Evidence: Low, Strength of Recommendation: Strong.]*
2. Screen youth patients for alcohol use with the Car, Relax, Alone, Forget, Friends, Trouble (CRAFFT) instrument (see associated documents) or the U.S. National Institute on Alcohol Abuse and Alcoholism (NIAAA) Screening Tool. *[Certainty of Evidence: Moderate, Strength of Recommendation: Strong.]*
3. To facilitate discussions about alcohol use, when appropriate, ask patients about current knowledge of and offer education about Canada's Guidance on Alcohol and Health. *[Certainty of Evidence: Low, Strength of Recommendation: Strong.]*
4. Assess patients who screen positive for high-risk alcohol use or for AUD (See DSM-5-TR Diagnostic Criteria for Alcohol Use Disorder). *[Certainty of Evidence: Low, Strength of Recommendation: Strong.]*
5. Use brief intervention for all patients who screen positive for alcohol use at moderate or high-risk limits but who do not meet the criteria for AUD (see Figure 1: Quick Guide to Outpatient Treatment of Alcohol Use Disorder). *[Certainty of Evidence: Moderate, Strength of Recommendation: Strong.]*
6. Consider using a motivational interviewing-based approach to support achieving treatment goals. *[Certainty of Evidence: Moderate, Strength of Recommendation: Strong.]*

Withdrawal Management

7. Use Prediction of Alcohol Withdrawal Severity Scale (PAWSS) to identify the most appropriate withdrawal management pathway. PAWSS is a validated tool for assessing the risk of severe complications of alcohol withdrawal. See associated documents for criteria. *[Certainty of Evidence: Moderate, Strength of Recommendation: Strong.]*
8. For patients at low risk of severe complications of alcohol withdrawal (ie., PAWSS < 4), consider prescribing alternatives to benzodiazepines, e.g., gabapentin, carbamazepine and/or adjuvants such as clonidine for withdrawal management in an outpatient setting. *[Certainty of Evidence: Moderate (gabapentin) Low (carbamazepine, clonidine), Strength of Recommendation: Strong.]*
9. For patients at high risk of severe withdrawal complications (ie., PAWSS ≥ 4), offer a short-term benzodiazepine prescription. This is ideally completed in an inpatient setting (i.e., a withdrawal management facility or hospital). Where inpatient admission is not available, benzodiazepine medications can be offered to patients in outpatient settings if they can be closely monitored and supported. *[Certainty of Evidence: High, Strength of Recommendation: Strong.]*
10. Do not prescribe benzodiazepines as ongoing treatment for AUD. *[Certainty of Evidence: High, Strength of Recommendation: Strong]*
11. When possible, patients who complete withdrawal management should be offered continuing care. Withdrawal management is a short-term intervention that does not resolve the underlying medical, psychological, or social issues of AUD and should be considered a bridge to continuing care. *[Certainty of Evidence: Low, Strength of Recommendation: Strong.]*
12. Patients should not be prescribed antipsychotics or selective serotonin reuptake inhibitors (SSRI) antidepressants if the primary reason is for the treatment of AUD. If SSRI antidepressants are prescribed for individuals with co-occurring mood disorders, clinicians and patients should be alert to the risk of increased alcohol cravings and use with SSRI therapy and discontinue as appropriate.[1] *[Certainty of Evidence: Strong, Strength of Recommendation: Moderate.]*

Continuing Care

13. Consider offering naltrexone or acamprosate to adult patients with moderate to severe AUD. These are first-line pharmacotherapy agents that may support patient-identified treatment goals.
    a. Naltrexone is recommended for patients who have a treatment goal of either abstinence or a reduction in alcohol consumption. *[Certainty of Evidence: High, Strength of Recommendation: Strong.]*
    b. Acamprosate is recommended for patients who have a treatment goal of abstinence. *[Certainty of Evidence: High, Strength of Recommendation: Strong.]*
14. Consider offering topiramate to adult patients with moderate to severe AUD who do not benefit from or have contraindications to first-line medications. Some patients may express a preference for topiramate or gabapentin.
    a. Topiramate. *[Certainty of Evidence: Moderate, Strength of Recommendation: Strong.]*
    b. Gabapentin. *[Certainty of Evidence: Low, Strength of Recommendation: Conditional.]*
15. Consider providing information about and referrals to specialist-led psychosocial treatment interventions to all patients with AUD. See the resource section for referral and specialist information. *[Certainty of Evidence: Moderate, Strength of Recommendation: Strong.]*
16. Consider providing all patients with AUD information about and referrals to peer-support services, harm reduction interventions and/or other recovery-oriented services in the community. *[Certainty of Evidence: Moderate, Strength of Recommendation: Strong.]*

Figure 1: Quick Guide to Outpatient Treatment of Alcohol Use Disorder

General Approach

If a patient sometimes drinks beer, wine, other alcoholic beverages or non beverage alcohol (e.g., mouthwash, rubbing alcohol, cologne), screen using:
- Single Alcohol Screening Question (SASQ)

How many times in the past year have you had (4 for women, or 5 for men) or more drinks in a day
- AUDIT-C
- AUDIT – Patient Self-Test

Assessment

Confirm alcohol use disorder (AUD) using DSM-5-TR criteria:[1]

DSM-5-TR AUD Criteria:[1]

A problematic sequence of alcohol use resulting in clinically significant distress/impairment is present by a minimum of two or more of the following:

- More use than intended
- Difficulty cutting down
- Lots of time spent drinking
- Cravings
- Tolerance
- Withdrawal
- Continued use despite physical or mental consequences
- Failure to fulfill major obligations
- Interpersonal problems
- Activities given up
- Use in physically hazardous situations

Mild: 2–3
Moderate: 4–5
Severe: 6 or more (within 12-month period)

Psychosocial supports:

- Patients benefit from access to comprehensive treatment approach, including medication, primary care visits, and community-based psychosocial supports.
- **Psychosocial supports:** counseling, group therapy, mutual help groups (12-step [e.g., AA] or secular [e.g., SMART Recovery, LifeRing]), inpatient treatment facilities, intensive outpatient day programs.
- Motivational interviewing is an evidence-based approach that family physicians can use to help patients achieve their goals.

Medication coverage:

- Effective April 20, 2023, naltrexone 50 mg and acamprosate 333 mg are now regular benefit.

Substance use history with special attention to other sedatives (e.g., opioids, benzodiazepines), past treatments, patient's goals, and barriers

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Consider **complete physical** to assess medical complications of alcohol use

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Review **investigations** (special consideration to ALT, AST, GGT, creatinine/GFR, MCV, urine drug screen, HIV, hepatitis C)

Treatment

Consider detox if appropriate and patient is willing (see next page)

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Moderate to severe AUD: Offer trial of naltrexone or acamprosate to reduce drinking; support patient's abstinence while considering contraindications and patient factors. Provide all patients with information on and referrals to **psychosocial treatments** and community-based supports

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Trial medication: titrate or switch as needed

Monitoring

Be prepared to consider continuing medication for **6–24 months**

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Offer **follow-up** appointments to offer support, monitor progress and relapses

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Offer or facilitate referral to **psychosocial support** per patient preference

Medications:

***Naltrexone*:**
- Opioid antagonist; reduces pleasurable effects of alcohol.
- NNT = 10–12 to reduce heavy drinking.
- Often preferred due to simple dosing.
- **Target dose 50 mg once daily.** Expert clinical practice suggests patients may benefit (improved tolerance) from a graduated titration approach 25 mg PO daily × 3 days, then increase to 50 mg.
- Usual dose is 50 mg, rarely up to 150 mg; sometimes used as PRN on drinking days when stable.
- Can start at any time (no need to abstain from alcohol).
- Contraindications: concurrent opioid use (consider Rx or illicit), severe liver dysfunction.
- Side effects: N/V, headache, fatigue, elevated enzymes, naltrexone may cause reversible elevation monitor more closely at baseline.

***Acamprosate*:**
- GABA agonist/glutamate antagonist; rebalances neuronal brain changes from chronic alcohol use.
- **Target dose is 666 mg PO TID.** Expert clincal practice suggests patients may benefit (improved tolerance) from a graduated titration approach of 333 mg PO TID × 3 days then 666 mg PO TID.
- Contraindications: severe renal failure.
- Side effects: diarrhea (common), nausea, headache.

Medication notes:

- If patient resumes alcohol use, they should still continue medication.
- **Disulfiram (Antabuse) rarely used anymore**; exceptions include patient request.
- Emerging evidence for topiramate and gabapentin.
- Pregnancy: safety of acamprosate and naltrexone has not been well established; balance risk of ongoing use. Topiramate use during pregnancy has established risks.

[1] Please refer to full DSM-5 criteria, refer to BCCSU guideline page 110

Definition

- AUD is a chronic relapsing and remitting medical condition attributed to an impaired capability to regulate alcohol use regardless of detrimental health, social or occupational repercussions.[2] The diagnosis of an AUD is made using the DSM-5-TR Diagnostic Criteria for Alcohol Use Disorder.

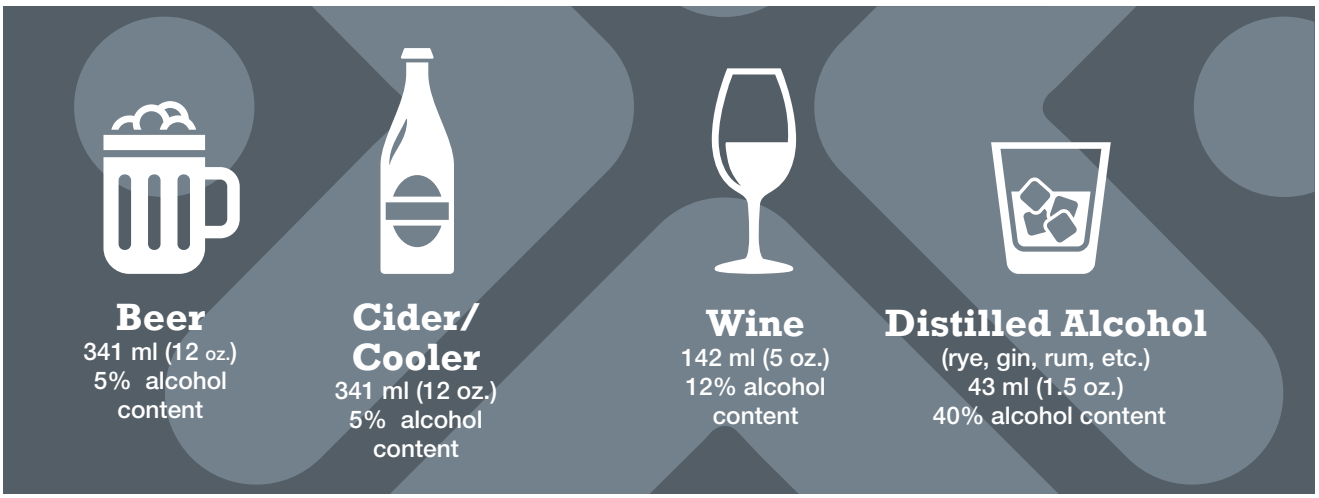
Figure 2: Definition of AUD and risk levels (adapted from the 2023 Canadian Guideline for the Clinical Management of High-Risk Drinking and Alcohol Use Disorder)

	Low risk for AUD	Moderate risk for AUD	High risk for AUD
AUDIT score	0-7 drinks/week	8-15 drinks/week	≥ 16 drinks/week
AUDIT-C score	0-4 drinks/week	5-7 drinks/week	≥ 8 drinks/week

This guideline uses different low- and high-risk definitions based on the validated screening tools.

- Primary care practitioners can adjust recommendations based on individual patient factors, including mass, biological (sex-related) factors (e.g., alcohol pharmacokinetics, hormone levels), and psycho-socio-cultural (gender-related) factors.[3]

Figure 3: Standard Drink Alcohol Equivalency[4]



Epidemiology

AUD and HRD are common in Canada.[4] It is estimated that up to 18% of all Canadians aged 15 or older have met the clinical criteria for an AUD during their lifetime.[5] 19.5% of Canadians aged 12 or older currently drink more than recommended daily or weekly limits.[6] Nearly 200 disease or injury conditions are wholly or partly attributable to alcohol use. The total global burden of disease is estimated to be two to three times higher than that of all illicit substances combined.[7,8] In BC, there were nearly 28 alcohol-related deaths per 100,000 people in 2017.[9] In the context of the opioid overdose crisis, which claimed approximately 31 lives per 100,000 people in BC in 2018, alcohol was present in over 25% of overdose deaths between 2016 and 2018.[10]

In BC, annual per capita consumption rates of pure ethanol have increased,9 an upward trend that has been correlated with the privatization of alcohol sales and increased availability of and access to alcohol.[11] Hospitalization rates in BC for alcohol-related conditions increased, surpassing those for tobacco-related conditions in 2017.[9] Similarly, the number of primary care visits for alcohol-related conditions increased by 53% between 2001 and 2011.[12] Excessive alcohol consumption may also result in multiple psychosocial and relational harms, including absenteeism, family disruption, violence, and lost income.[13] Refer to the Canadian Substance Use Costs and Harms (CSUCH) Visualization Tool.

The prevalence of alcohol-related harms is higher for the following patient populations: Indigenous peoples, 2SLGBTQ+ populations, pregnant individuals, youth, older adults (age > 64), and individuals with co-occurring mental health and substance use disorders. The reason for increased harms in some patient populations is complex, impacted by factors including but not limited to history of colonization, inter-generational trauma, and ongoing discrimination. Drinking is a leading cause of death and social issues in young people. Binge drinking is common in youth, and intoxication is associated with high risks of injuries, aggression and violence, dating violence, and worsening academic performance. Youth under the legal drinking age should delay drinking for as long as possible.[14]

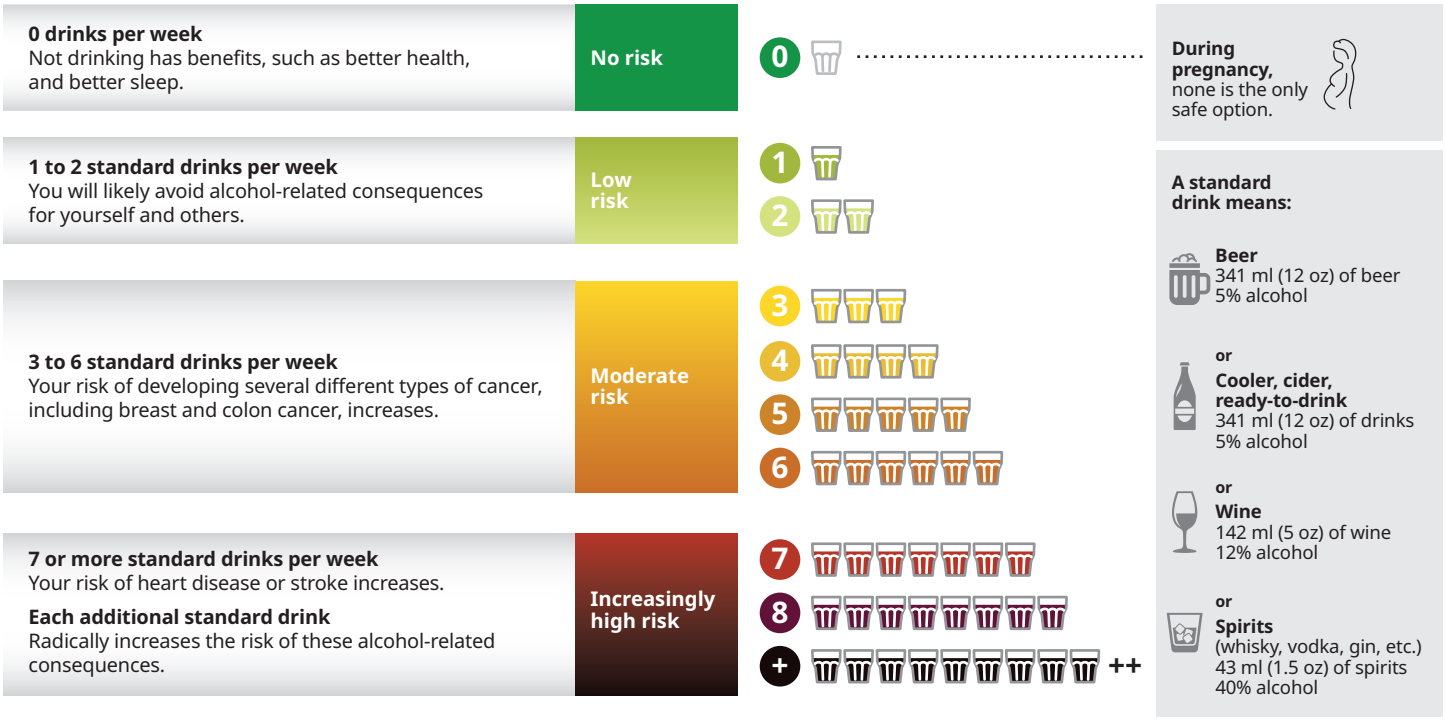
Risk Factors

It is common for alcohol use to coincide with other substance use. For people with AUD, tobacco use disorder is the most commonly reported co-occurring substance use disorder, resulting in various adverse health effects (e.g., cognitive impairment and increased risk of cirrhosis). There is an increased risk of respiratory depression, overdose, and death for those who use opioids and alcohol concurrently, or benzodiazepine receptor agonists and alcohol. See the BCCSU Provincial Guideline for the Clinical Management of High-Risk Drinking and Alcohol Use Disorder (2019) for more information.

Figure 4: Alcohol and Health (from the World Health Organization, 2018)[8]

Drinking alcohol can cause several types of cancer.[15,16] The US Department of Health and Human Services' *Report on Carcinogens, the National Toxicology Program* lists consumption of alcoholic beverages as a known human carcinogen. Current evidence indicates that the more alcohol a person drinks, the higher their risk of developing certain cancers linked to alcohol use. This correlation is particularly prevalent the more alcohol a person drinks regularly over time. Even those without an AUD but who have one drink per day or are binge drinkers (i.e., those who consume 4 or more drinks for women and 5 or more drinks for men in one sitting) have a modestly increased risk of some cancers.[17–21] Based on data from 2009, an estimated 3.5% of cancer deaths in the United States (about 19,500 deaths) were alcohol-related.[22,23]

Figure 5: The Continuum of Alcohol-related Risks (from Canada's Guidance on Alcohol and Health)[14]



Principles of Care

Primary care providers play an important role in early detection and intervention for HRD, outpatient withdrawal management and treatment of AUD, and connecting patients and families with specialized services and community-based supports.[24] Although HRD and AUD can be quickly and easily identified using simple screening tools, alcohol use screening is not widely implemented in clinical practice.[25] This is a critical missed opportunity for early intervention, at a point where many individuals, including adolescents and young adults, may respond positively to brief counselling interventions alone.[25] Screening and initial intervention are well within the scope of practice for all primary care practitioners.

Several overarching principles of care apply to all recommendations and to establishing positive partnerships with patients and families experiencing alcohol-related harms. See Table 1: Principles of Care.

Table 1: Principles of Care (reproduced from the 2023 Canadian Guideline for the Clinical Management of High-Risk Drinking and Alcohol Use Disorder)[1]

Principle	Definition
Social determinants of health	Alcohol use, high-risk drinking and AUD should be viewed within a larger societal framework that is shaped by inequities in the social determinants of health. Where appropriate, clinicians should aim to address disparities in the socioeconomic determinants of health by connecting patients with resources that meet these needs (e.g., housing, food and nutrition, financial assistance, employment).
Patient-centred care	Clinicians should strive to provide care that is respectful of the unique needs, values and preferences of each patient. Patients should be empowered as experts in their own care.
Trauma- and violence-informed practice	Clinicians should be familiar with and incorporate the principles of trauma- and violence-informed practice into the care and clinical management of patients with AUD, with the goal of creating a safe and respectful environment that minimizes the potential for harm and re-traumatization.
Antiracist practices	Confronting and interrogating racist structures in health care and building awareness of one's own position within oppressive systems can help improve care engagement and health outcomes for racialized populations.
Indigenous cultural safety and humility	Clinicians should make a meaningful commitment to providing culturally safe care and practicing cultural humility in order to establish safe, positive partnerships with Indigenous patients and families.
Harm reduction	A harm-reduction approach to alcohol use supports any steps taken by patients to improve their health and well-being. Clinicians should respect patients' decisions and goals regarding alcohol use and promote strategies to minimize alcohol-related harms.
Recovery and wellness-oriented care	Clinicians should acknowledge and validate patients' goals in AUD treatment and care, which may include recovery or self-defined wellness.
Integrated continuum of care	AUD is understood to be a potentially chronic, relapsing, and remitting condition. Use a stepped and integrated approach where treatment options are continually adjusted to meet changing patient needs, circumstances and goals.
Comprehensive health management	AUD should be managed within a broader framework of comprehensive health care and support, including routine and ongoing medical, mental health and psychosocial assessments.
Family* and social circle involvement in care	Family and social circle involvement in treatment planning and decision-making should be encouraged whenever possible, and when deemed appropriate by the patient and their care team.

* This guideline uses the term "family" to encompass all relations that are important to the patient within their social circle, this may include romantic partners, close friends, and other people of significance who may or may not be legally recognized as family.

Alcohol Use Screening

- **Brief interventions for drinking above low-risk alcohol limits**

Recommendation 1: Screen all patients routinely for alcohol use above low-risk limits.

Recommendation 2: Screen youth patients for alcohol use with Associated Document: Car, Relax, Alone, Forget, Friends, Trouble (CRAFFT) instrument or U.S. National Institute on Alcohol Abuse and Alcoholism (NIAAA) Screening Tool.

Recommendation 3: Awareness of Canada's Guidance on Alcohol and Health

Offer education regarding alcohol use to patients as appropriate. Patients may benefit from receiving education about Canada's Guidance on Alcohol and Health. Many individuals look to their care providers as the primary source of this education.

Remarks

- This recommendation is graded as strong despite limited research evidence. It is the consensus of the committee that all patients could potentially benefit from increased knowledge and awareness of Canada's Guidance on Alcohol and Health.
- Cultural safety and humility are critical when speaking with Indigenous patients and families about alcohol use. Some patients may have experienced stigma and discrimination or have been subject to harmful stereotypes about Indigenous peoples and alcohol in the past. Using culturally safe approaches can minimize unintended harms and strengthen the therapeutic relationship.
- Primary care practitioners who demonstrate that they are comfortable and willing to acknowledge difficult topics, and believe in their patient's ability to make positive changes are better able to support their patients improve their well-being, address past experiences, and give hope for the future.[26] Refer to Associated Document: Validating and Invalidating Statements and Curious Questions.

Individuals sometimes underreport alcohol use due to experiences of guilt or a fear of facing judgment. By using a trauma-informed motivational interviewing approach, clinicians can still have valuable conversations about alcohol use. There are multiple screening tools available to practitioners, including:

- Screening Adult Patients: Single Alcohol Screening Question (SASQ), AUDIT, AUDIT-Consumption (AUDIT-C), Cut-down, Annoyed, Guilty, Eye Opener (CAGE) questionnaire. (see Associated Document)
- Screening persons with substance use disorders (SUD) or those whose use is at higher levels of risk: Screening, brief intervention, and referral to treatment (SBIRT)
- Screening Pregnant Patients: Single Alcohol Screening Question (SASQ)
    - Note that the BC Centre of Excellence for Women's Health also has several guides to support clinicians in engaging with pregnant individuals and their partners on alcohol use.
    - Refer to Canada's Guidance on Alcohol and Health: Final Report to see specific messages for girls and women.

Screening Youth

For youth aged 10–18, the following validated screening tools are available: AUDIT, AUDIT-Consumption (AUDIT-C), and the six-question Car, Relax, Alone, Forget, Friends, Trouble (CRAFFT) instrument (which is specifically for screening adolescents).[4] However, a simplified 1-2-question screening approach may be preferred due to brevity and ease of recall in primary care settings. Also consider using the NIAAA Screening Tool. Early identification can lead to more youth accessing appropriate intervention choices.[27] It is imperative for safe spaces to be created to facilitate nuanced conversations with youth patients.

Table 2: Clinical Indications for Alcohol Use Screening

Common clinical scenarios that should trigger alcohol screening regardless of whether or when a patient was last screened include:

- Signs of intoxication or detection of alcohol on breath.
- Before prescribing a medication known to interact with alcohol (see Appendix C: Common Types of Interactions Between Alcohol and Medications).
- Patient reports non-medical use of opioids, benzodiazepines, or illicit substances.
- Patients with chronic non-cancer pain.
- Laboratory investigations indicate elevated liver enzymes [e.g., alanine transaminase (ALT) and/or increased mean cell corpuscular volume (MCV) > 96 fL on complete blood count (CBC) panel] that are otherwise unexplained.
- Patients who are pregnant or planning to become pregnant.
- Recent and/or repeated physical trauma, burns, injuries, accidents, or falls (see BCGuideline: Fall Prevention: Risk Assessment and Management for Community-Dwelling Older Adults).
- Recent, historical, or recurrent psychological trauma, violence associated with intimate partner or family violence.
- Significant life event (e.g., death of spouse or family member, divorce).
- Signs of workplace dysfunction (e.g., unexplained time-off, loss of employment).
- High-risk behaviors (e.g., problem gambling, unplanned or unprotected sex, impaired driving).
- Diagnosis or worsening of health conditions that may be associated with alcohol use:
  - Depression
  - Anxiety
  - Insomnia
  - Seizures
  - Psychosis
  - Anemia
  - High blood pressure
  - Cardiovascular disease
  - Gout
  - Memory loss
  - Pancreatitis
  - Gastrointestinal disorders
  - Hepatitis, cirrhosis
  - Kidney/liver disease
  - Recent fall(s)

Cultural Safety and Humility

Cultural safety and humility are critical when talking to Indigenous patients and families about alcohol use. Many patients may have experienced stigma and discrimination or been subject to harmful stereotypes about Indigenous peoples and alcohol or have heard stories of their friends and family experiencing these harms from the health care system. Clinicians can engage in their own life learning practice of cultural safety and humility which can support strengthening the therapeutic relationships with Indigenous patients and mitigate potential harms.

Diagnosis of AUD

AUD diagnosis is made using the DSM-5-TR Diagnostic Criteria for AUD. See algorithm in the Figure 1: Quick Guide to Outpatient Treatment of Alcohol Use Disorder for more information on conducting a substance use history, physical examination and appropriate investigations.

Recommendation 4: Assess patients who screen positive for high risk alcohol use or for AUD (DSM-5- TR).

DSM-5-TR AUD Criteria:[1]

A problematic sequence of alcohol use resulting in clinically significant distress/ impairment is present by a minimum of two or more of the following:

- More use than intended
- Difficulty cutting down
- Lots of time spent drinking
- Cravings
- Tolerance
- Withdrawal
- Continued use despite physical or mental consequences
- Failure to fulfill major obligations
- Interpersonal problems
- Activities given up
- Use in physically hazardous situations

Mild: 2–3
Moderate: 4–5
Severe: 6 or more (within 12-month period)

Management

- Setting patient-centered treatment goals
  - Patients benefit from knowing about the health and social risks of excessive alcohol use and often look to their care providers for this information.
  - Adopt an approach that supports individual patient autonomy in identifying their own goals of care, which may include safer alcohol consumption, reduced alcohol consumption or abstinence. Alongside models that focus on abstinence, models that focus on a reduction in drinking and alcohol-related harms are a useful and appropriate goal for some patients. This patient-centered approach may also support continued engagement in care in a disease that can be chronic and relapsing.
  - Recognize that a reduction in drinking and alcohol-related harms is a useful and important goal for some patients.

Recommendation 5: Brief Intervention for Drinking Alcohol Above Low-Risk Limits

Use brief interventions in all patients who consume moderate or high amounts of alcohol but who do not meet criteria for AUD.

Remarks

- Brief intervention with frequent reassessment/check-in to keep conversations going is the recommended intervention for alcohol use in patients who DO NOT meet an AUD diagnosis; for individuals who do meet an AUD diagnosis, see recommendation 6.

Recommendation 6: Primary Care-led Psychosocial Treatment Interventions for AUD

Consider using a motivational interviewing-based approach when counselling patients with mild to severe AUD to support achievement of treatment goals. Refer to the Centre for Collaboration, Motivation and Innovation for additional information.

- **Overview of alcohol withdrawal**

≥ 70% of patients in outpatient withdrawal management complete treatment, and 50% of these patients stay involved in ongoing addiction care to achieve long-term recovery goals (i.e., reducing heavy drinking or abstinence).[28]

- **Assessing risk of severe complications of alcohol withdrawal**

Recommendation 7: Assessing the Risk of Severe Complications of Withdrawal

Use PAWSS to help select the most appropriate withdrawal management pathway. PAWSS is a validated tool to assess the risk of severe complications of alcohol withdrawal in patients with AUD. For more information see *Associated Document: Prediction of Alcohol Withdrawal Severity Scale (PAWSS)*.

Remarks

- This tool should be used in conjunction with clinical judgement based on a comprehensive assessment of a patient's medical history, current circumstances, needs, and preferences.
- The PAWSS is not suitable for self-assessment and should be administered by a clinician.
- The PAWSS has not been validated in pregnant or youth populations.
- Patients may confuse some PAWSS criteria with common and less severe symptoms of withdrawal (e.g., seizures and delirium tremens). To avoid false positives, the administering clinician should clearly define these criteria prior to obtaining the patient's responses.

- **Point-of-care assessment of withdrawal symptom severity**

Periodic assessment of the withdrawal process has been shown to facilitate appropriate adjustments in dosing and mitigate the risk of progressive severity in patients deemed high-risk for severe or complicated withdrawal (e.g., PAWSS ≥ 4). There are many alcohol withdrawal complications, including seizures and delirium.[29–31] The most commonly used alcohol withdrawal symptom severity assessment scales are the *Clinical Institute Withdrawal Assessment Alcohol revised (CIWA-Ar)* (see *Associated Document: Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar)*).[31–33]

- **Withdrawal management strategies**

Withdrawal Management in Adolescent Patients

An estimated 5-10% of adolescents with an AUD will experience withdrawal symptoms,[34] with only a subset requiring pharmacological management.[35] Due to the relative rarity of this condition, no empirical data are available to make evidence-based recommendations for the pharmacological management of alcohol withdrawal in adolescents. When pharmacological management is necessary, approaches are generally the same for adolescents as for adult patients.[35] Consultation with an addiction medicine specialist is strongly recommended before initiating monitored withdrawal in an outpatient setting, even if the PAWSS < 4, as this instrument has not been validated for use in youth. All care providers, patients, and families in BC can access information and referrals from the D-Talks (youth detox) provincial contact line (1-866-889-4700) and online at http://www.bcdetox.com/sample-page-2/.

Withdrawal Management in Pregnant Patients

There are unique considerations for withdrawal management in pregnant individuals. The potential maternal and fetal risks and benefits of pharmacotherapy must be weighed against the known risks of untreated withdrawal and/or continued alcohol consumption. Very few medications have been studied in pregnant individuals. Several options that have been proven safe and effective in non-pregnant patients are contraindicated in pregnancy due to the risk of fetal malformations (e.g., carbamazepine).

The limited research on withdrawal management during pregnancy has focused almost exclusively on benzodiazepine-based pharmacotherapy and has yielded conflicting results. Early studies suggested that benzodiazepines are associated with increased risk of fetal malformations. However, a more recent meta-analysis concluded that, overall, the available evidence did not support their teratogenicity.[36–38] Caution is indicated as very few studies have been published on the topic.

Few clinical practice guidelines have made explicit recommendations for withdrawal management in pregnant individuals. The World Health Organization's 2014 Guidelines for Identification and Management of Substance Use and Substance Use Disorders in Pregnancy recommend that pregnant individuals with AUD are admitted to inpatient withdrawal management facilities or hospital settings that are appropriately equipped to monitor fetal movement and vital signs during treatment.[39] Pharmacotherapy with benzodiazepines is recommended where indicated and delivered under close observation so that dose can be titrated to severity of withdrawal symptoms.[39,40] In the absence of clear evidence, the risks of untreated maternal alcohol withdrawal symptoms, including fetal distress, spontaneous abortion, preterm birth, and fetal demise,[38] must be weighed against the risks of pharmacological treatment.

Withdrawal Management in Older Adults

Individuals aged ≥ 65 are more vulnerable to the effects and harms of alcohol. Aging has many dimensions, and guidance may be relevant for some individuals < 65 years of age due to medical, psychological, and social contexts. On the other hand, some individuals ≥ 65 years of age may be better suited to approaches used for adults < 65 years of age. Due to stigma, fear of judgement, and cognitive deficits, under-reporting substance use may occur. Be mindful of the clinical signs of alcohol-related problems, and approach screening of older adults with patience and sensitivity. Older adults experience an increased prevalence of comorbid medical conditions and a higher susceptibility to severe alcohol withdrawal complications. As a result, a higher intensity, structured approach to care, e.g., referrals to inpatient withdrawal management, inpatient treatment programs, or intensive outpatient programs may benefit individuals aged ≥ 65.[28]

Moreover, the effect on comorbid conditions and potential drug-drug interactions should be carefully examined when selecting AUD pharmacotherapies, since older patients likely have a higher prevalence of medical conditions and/or take various medications for chronic disease management.[28] Review the social supports and functional status of elderly patients with AUD, in addition to their medical and psychiatric comorbidities. Interdisciplinary care for these patients is important; consult addiction services where available. For more information refer to the 2019 Canadian Guidelines on Alcohol Use Disorder Among Older Adults by the Canadian Coalition for Seniors' Mental Health.

- **Pharmacotherapies for Withdrawal Management**

See Figure 1: Quick Guide to Outpatient Treatment of Alcohol Use Disorder.

Recommendation 8: Pharmacotherapy for Management of Mild to Moderate Withdrawal in Patients at Low Risk of Severe Complications

For patients at low risk of severe complications of alcohol withdrawal (i.e., PAWSS < 4), consider prescribing alternatives to benzodiazepines, e.g., gabapentin, carbamazepine, and adjuvants such as clonidine for withdrawal management in an outpatient setting.

Remarks

- Selection of an appropriate medication should be made through shared decision-making by patient and provider, especially in consideration of a patient's goals, needs, preferences, and ability to adhere.
- Benzodiazepines are not a preferred option for outpatient withdrawal management due to their side effects, tendency to potentiate the effects of alcohol when used concurrently, and potential for non-medical use. Although not preferred, if benzodiazepines are prescribed for outpatient withdrawal management, the following measures may be considered:
  - Prescribing a short course prescription (3–7 days) with a fixed-dose schedule.
  - Daily dispensing from a pharmacy.
  - Frequent clinical visits to closely monitor side effects, symptoms, and alcohol use, and to make dose adjustments as needed.
- People of Asian descent are at increased risk of serious cutaneous adverse drug reactions [e.g., Stevens-Johnson Syndrome, Toxic Epidermal Necrolysis (TEN), maculopapular rash] due to a higher baseline prevalence of the HLA-B*1502 allele, a marker for carbamazepine toxicity. Avoid carbamazepine in this population unless genetic testing is available and has excluded risk.[41]
- In addition to a PAWSS score < 4, candidates for outpatient withdrawal management should meet the following criteria. Patients who do not meet these criteria should be referred to inpatient treatment:
  - No contraindications such as severe or uncontrolled comorbid medical conditions (e.g., acute confusion, gastrointestinal bleeding, electrolyte imbalance, infection, cognitive impairment, chronic and complex pain disorders), serious and unstable psychiatric conditions, history of documented seizure disorder concurrent severe substance use disorders other than tobacco use, pregnancy, old age or physical frailty, and/or social instability.
  - Ability to commit to daily medical visits for the first 3 -5 days, or to participate in an appropriate remote mode of medical follow-up when in-person visits are not feasible.
  - Ability to take oral medications.
- Stable accommodation and reliable caregiver for support and symptom monitoring during acute withdrawal period (i.e., 3-5 days).
- See Appendix A: Pharmacotherapy Options for Outpatient Management of Alcohol Withdrawal for more information.

Recommendation 9: Withdrawal Management for Patients at High Risk of Severe Complications

For patients at high risk of severe complications of withdrawal (e.g., PAWSS ≥ 4), clinicians should offer a short-term benzodiazepine prescription. This is ideally completed in an inpatient setting. Where inpatient admission is not available, benzodiazepine medications can be offered to patients in outpatient settings if they can be closely monitored and supported.

Remarks

- Conditions that could indicate inpatient withdrawal management regardless of PAWSS score include:
  - Multiple unsuccessful attempts at outpatient withdrawal management
  - Failure to respond to medications after 24 -48 hours
  - Unstable medical conditions
  - Unstable psychiatric disorders
  - Chronic, complex pain disorders
  - Concurrent use of other CNS depressants (e.g., prescribed or nonmedical use of Z-drugs, benzodiazepines, barbiturates, opioids)
  - Severe liver compromise (e.g., jaundice, ascites, decompensated cirrhosis)
  - Pregnancy
  - Lack of a safe, stable, and substance-free setting and /or caregiver to dispense medication
- If a patient has a PAWSS ≥ 4 but inpatient treatment is not feasible due to patient preference or access to beds, and a clinical decision to prescribe benzodiazepines is made, develop a care plan that optimizes connection with a community pharmacist, consider involving family members or other supports and monitor patient closely (e.g., daily phone calls, frequent clinical visits).
- Provide education regarding risks of concurrent benzodiazepine and alcohol use. Ensure the patient is aware of symptoms that require management in an inpatient setting.

- **Continuity of care following withdrawal management**

Recommendation 10: Benzodiazepines should not be prescribed as ongoing treatment for AUD.

Recommendation 11: Where possible and when appropriate, patients who complete withdrawal management should be offered continuing care. Withdrawal management is a short-term intervention that does not resolve underlying medical, psychological, or social issues associated to AUD, and should be considered a bridge to continuing care, treatment, and support that will address these concerns.

Recommendation 12: Patients should not be prescribed antipsychotics or SSRI antidepressants if the primary reason is for the treatment of AUD.

- If SSRI antidepressants are prescribed for individuals with co-occurring mood disorder, clinicians and patients should be alert to the risk of increased alcohol cravings and use with SSRI therapy and discontinue as appropriate.[42]
- Patients with AUD are often prescribed modern antidepressants and/or antipsychotics to treat AUD symptoms, but these medications have little benefit in AUD and may worsen AUD outcomes.

Pharmacological Management

Recommendation 13: First-line Pharmacotherapy for Alcohol Use Disorder

Consider offering naltrexone or acamprosate to adult patients with moderate to severe AUD. These are first-line pharmacotherapy agents that may support patient-identified treatment goals.

a. Naltrexone is recommended for patients who have a treatment goal of either abstinence or a reduction in alcohol consumption.

b. Acamprosate is recommended for patients who have a treatment goal of abstinence.

Remarks

- Naltrexone is contraindicated in patients regularly taking opioids/those with opioid dependence, as it will initiate precipitated withdrawal in individuals who have not ceased opioid use for 7–10 days. Caution is advised in prescribing naltrexone to patients with renal and liver disease, patients who are pregnant, and patients under the age of 18, and patients over the age of 65.*Φ
- Acamprosate is contraindicated in patients with severe renal impairment (i.e., creatinine clearance ≤ 30mL/min), patients with a known hypersensitivity to the drug or its constituents, and in patients who are breastfeeding.
- Completion of withdrawal management is not a mandatory prerequisite to starting treatment.

* Naltrexone may have a protective effect against overdose for individuals who regularly use alcohol and infrequently use opioids and may reduce opioid use.43

Φ Naltrexone should not be prescribed to patients who are taking opioids, either prescribed or illicit. This includes opioids prescribed for opioid agonist treatment for opioid use disorder (e.g., buprenorphine/naloxone, methadone, slow-release oral morphine). Prescribing naltrexone to an individual taking opioids increases the risk of precipitated withdrawal or potentially fatal overdose if opioids are consumed in an effort to overcome naltrexone's opiate blockade. The safety and efficacy of combination naltrexone and disulfiram is unknown. The combined use of two potentially hepatotoxic medications is not recommended unless the benefits outweigh the risks.

- **Duration of treatment**
  - AUD is a chronic, relapsing, and remitting medical condition, therefore, an ongoing and individually tailored approach to clinical management is required.
  - Most clinical practice guidelines recommend that AUD pharmacotherapy be prescribed for at least 6 months, at which point the utility of continuing treatment can be re-assessed in collaboration with the patient.[40,44,45]
    - If deemed clinically necessary, medications can be continued indefinitely unless safety concerns arise.[46] For additional details, please refer to tables available at BCCSU guidelines.
    - Patients may also choose to restart medications while still abstinent if they are experiencing cravings or triggers to return to alcohol use.

- **Alternative and emerging pharmacotherapies for AUD**

Recommendation 14: Alternative Pharmacotherapy for Alcohol Use Disorder

Consider offering topiramate or gabapentin to adult patients with moderate to severe AUD who do not benefit from, have contraindications to first-line medications, or express a preference for an agent.

Remarks

- Selection of an appropriate medication should be made through a shared decision-making process between patient and provider after reviewing evidence of benefits and risks, and especially in the context of the patient's goals, needs and preferences.
- Contraindications, side effects, feasibility (dosing schedules, out-of-pocket costs), and patient history with either medication should be taken into account.
- As with any medication prescribed off-label, it is important to conduct a full assessment, including careful review of concomitant medications for potential drug-drug interactions, and to clearly document patient consent prior to initiating treatment.
- Gabapentin is **contraindicated** in patients with a known hypersensitivity to the drug or its constituents. **Caution** is advised in prescribing gabapentin to patients with cognitive or mental impairment, taking opioids (prescribed or non-medical use), who are pregnant or breastfeeding, are under the age of 18, and over the age of 65.
- Topiramate is **contraindicated** in patients with a known hypersensitivity to the drug or its constituents and in patients who are pregnant or planning to become pregnant. **Caution** is advised in prescribing topiramate to patients with renal disease or failure, with hepatic disease, under the age of 18, and over the age of 65. Due to dose-dependent risk of significant CNS side effects, gradually titrate dose upwards over a period of 4-8 weeks.

- **Pharmacotherapy options for youth**
  - Pharmacotherapies approved for treatment of AUD in adults (naltrexone, acamprosate) can be considered on a case-by-case basis for treatment of moderate to severe alcohol use disorder in youth (e.g., ages 10 and older).[40,47–51]
  - Alcohol is the most commonly used substance in youth, which does warrant routine screening, brief intervention, and advice on safer use. However, very few youths seen in primary care will meet the DSM-5-TR criteria for a moderate to severe alcohol use disorder.
  - Consultation with an addiction medicine specialist, the RACE line (Vancouver area: 604-696-2131; toll-free: 1-877-696-2131, www.raceconnect.ca) or the 24/7 Addiction Medicine Clinician Support Line to speak to an Addiction Medicine Specialist at 778-945-7619 is recommended prior to prescribing AUD pharmacotherapy to youth.

- **Pharmacotherapy options for pregnant patients**
  - Prescribing AUD pharmacotherapy to pregnant patients should be done in close consultation with a perinatal addiction medicine specialist (Local RACE Line Number: 604-696-2131 or Toll free number: 1-877-696-2131 – Press 3).
  - Topiramate is contraindicated in patients who are pregnant or plan to become pregnant due to its association with cleft palate if used in the first trimester.[52] There is strong recommendation against the use of disulfiram in pregnancy, due to the potential risks of a severe disulfiram- alcohol reaction to the fetus.[38]
  - As there is insufficient evidence to support use of baclofen and ondansetron in non-pregnant patients, neither medication is considered appropriate for use in pregnancy. Refer to Fischler et al. (2022) for off-label and investigational drugs for AUD treatment.

Ongoing Care – Psychosocial treatment interventions

Recommendation 15: Specialist-led Psychosocial Treatment Interventions for AUD

Consider providing all patients with AUD information about and referrals to specialist-led psychosocial treatment interventions. See the resource section for referral information.

Remarks

- The referring clinician should continue to play an active role after connecting individuals to psychosocial treatment interventions by checking in with patients on their experience and overall satisfaction, encouraging regular attendance, and including related patient- or program-defined goals in their treatment plan.
- Referring clinicians should attempt to establish regular communication with specialist providers and programs to facilitate continuity of care, transitions in care, and to share relevant information (with the patient's permission, e.g., assessments, progress notes, discharge summaries).

- Combining pharmacotherapy and psychosocial treatment interventions
  - **Use a stepped and integrated care approach**, where treatment type and intensity are continually adjusted to match the individual patient's needs and circumstances over time. All therapeutic interventions should be understood as a trial of therapy and reassessed on a regular basis.
  - A stepped strategy recognizes that many individuals may benefit from the ability to access different psychosocial treatment and recovery support options at different times in their recovery.
  - The stepped approach may include treatment intensification (e.g., adding specialized psychosocial treatment to a pharmacotherapy-based strategy, consideration of structured treatment programs), transitions between different treatment options, and strategies to de-intensify pharmacological or psychosocial treatment at the patient's discretion, where the patient can opt to re-initiate pharmacotherapy or psychosocial treatment at any time if needs and circumstances change.

Recommendation 16: Peer-based Support Groups for Individuals with AUD

Consider providing all patients with AUD information about and referrals to peer-support services, harm reduction interventions and/or other services in the community (as appropriate/per patient goals).

Remarks

- Recommend providers are aware of and make informed referrals to peer-support groups that are active locally and online, including groups for specific populations (e.g., men, women, 2SLGBTQ+, co-occurring disorders, etc.), age-appropriate options for youth, and services for families.
- The primary care clinician or care team are encouraged to continue to play an active role after connecting individuals to peer support groups by checking in on their experiences and overall satisfaction, encouraging regular attendance, and including related patient or program-defined goals in the patient's treatment plan. Note that some groups focus on abstinence, such as Alcoholics Anonymous (A.A.), others on harm reduction. The patient's preferences' need to be matched to the group's goals. Encourage an individual to explore several options, understanding that some will be a better fit.

- **Peer support groups**
  - Self-Management and Recovery Training© (SMART© Recovery) – Offers mutual support meetings where participants design and implement their own recovery plan to create a more balanced, purposeful, fulfilling, and meaningful life. SMART provides specialized meetings and resources for a variety of communities. It is a method of moving from addictive substances and associated behaviors to a life of positive self-regard and willingness to change.
  - Alcoholics Anonymous (A.A.) and 12-Step Programs – A fellowship of people who come together to solve their drinking problem. The primary purpose is to help individuals to achieve and maintain sobriety. Open meetings are available to anyone interested in A.A.'s program of recovery from alcohol use disorder. Non-drinkers may attend open meetings as observers. Closed meetings are for A.A. members only or for those who have a drinking problem and have a desire to stop drinking.
  - LifeRing – Provides access to community-based mutual self-help support groups for those who self-identify with problematic substance use.

- **Community-based treatment and recovery programs**
  - Intensive Outpatient Programs
  - Inpatient Treatment Programs
  - Supportive Recovery Housing
  - Employer supported programs

- **Psychosocial support services**
  - There is likely a benefit to AUD care being offered in the context of interdisciplinary primary care teams that are equipped to address these needs when possible.
  - Where patients have encountered barriers to engagement in care, intensive case management,[53,54] assertive community outreach teams,[54–56] and peer-based outreach and support services[57,58] may also be effective strategies to improve retention in treatment.

- **Managed alcohol programs (MAP)**

MAPs are a harm reduction strategy used to minimize the personal harm and adverse societal effects of severe AUD, particularly as experienced by individuals who may be homeless or unstably housed.[59,60] Refer to the Provincial Guideline for the Clinical Management of High-Risk Drinking and Alcohol Use Disorder (2019) and Managed Alcohol Programs – Canadian Operational Guidance Document (2023) for more information.

- **Controversies in Care**

The recommendation for screening youth is based on known risks and harms of high-risk drinking and AUD, the benefits of early identification, intervention, and treatment, and the accuracy of youth-specific screening tools (e.g., NIAAA Screening Tool) for predicting current or future alcohol-related problems in youth.

While further research is needed on the balance of benefits and harms of screening and brief intervention for youth, screening and brief intervention are cost-effective and non-invasive interventions that address the preventable burden of alcohol use and high-risk drinking among youth. Screening and brief intervention for youth is in line with recommendations of the American Academy of Pediatrics and National Institute on Alcohol Abuse and Alcoholism.

Resources

Abbreviations:

AUD	Alcohol use disorder
CIWA-Ar	Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised
HRD	High-risk drinking
MAP	Managed alcohol programs
PAWSS	Prediction of Alcohol Withdrawal Severity Scale
SASQ	Single Alcohol Screening Question
SBIRT	Screening, brief intervention, and referral to treatment
SUD	Substance use disorder

Diagnostic Codes

303: Alcohol dependence syndrome

305: Non dependent use of drugs

Appendices

- Appendix A: Pharmacotherapy Options for Outpatient Management of Alcohol Withdrawal
- Appendix B: Pharmacotherapy for Alcohol Use Disorder
- Appendix C: Common Types of Interactions Between Alcohol and Medications

Associated Documents

The following documents accompany this guideline:

- *Associated Document: One-Page Summary*
- *Associated Document: Quick Guide to Outpatient Treatment of Alcohol Use Disorder*
- *Associated Document: Practitioner Support*
- *Associated Document: AUD Questionnaires*
- *Associated Document: Quality Improvement*
- BCGuideline: Fall Prevention: Risk Assessment and Management for Community-Dwelling Older Adults
- *List of Contributors*

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BC Guidelines are developed for the Medical Services Commission by the Guidelines and Protocols Advisory Committee, a joint committee of Government and the Doctors of BC. BC Guidelines are adopted under the *Medicare Protection Act* and, where relevant, the *Laboratory Services Act*.

Disclaimer: This guideline is based on best available scientific evidence and clinical expertise as of February 21, 2024. It is not intended as a substitute for the clinical or professional judgment of a health care practitioner.

Appendix A: Pharmacotherapy Options for Outpatient Management of Alcohol Withdrawal

Generic Name *Trade name* Dosage form and strengths Concurrent alcohol use	**Recommended Adult Dose**[A]	**Approx. Cost per course**[B]	**PharmaCare Coverage**[C]	**Adverse Effects**[D]	**Therapeutic Considerations**
Anticonvulsants					
Carbamazepine *Tegretol, G* IR Tabs: 200 mg Chewable: 100, 200 mg ER tab: 200, 400 mg Oral suspension: 20 mg/mL **Concurrent alcohol use**: no safety risk	IR tabs: Day 1: 200 mg QID Day 2: 200 mg TID Day 3: 200 mg BID Day 4-5: 200 mg once daily[4]	$3	Regular benefit	Dizziness, pruritis, ataxia, headache, drowsiness and nausea (all usually minor and temporary)	Efficacy:[4] • 6 RCTs report equal or superior efficacy in reduction of withdrawal symptom severity compared to benzodiazepines • Insufficient evidence for prevention of seizures or delirium tremens Contraindications:[4] • Hepatic disease • Bone marrow depression • Serious blood disorder • Atrioventricular heart block Caution: • The HLA-B*15:02 and HLA-A*31:01 alleles increase risk of carbamazepine toxicity. Consider monitoring patients for adverse reactions (SJS, TEN, maculopapular rash) if there is an elevated risk of carrying these alleles. • People of Asian descent are at increased risk of serious cutaneous adverse drug reactions (Stevens-Johnson Syndrome, Toxic Epidermal Necrolysis [TEN], maculopapular rash) due to a higher baseline prevalence of the HLA-B*1502 allele, a marker for carbamazepine toxicity. Avoid carbamazepine in this population unless genetic testing is available and has excluded risk. Other: • Considerations for use: non-sedating, no interaction with alcohol, no reported potential for non-medical use or diversion • Some adverse effects resemble withdrawal symptoms; ascertain the source of symptoms before dose adjustments • Baseline and periodic evaluations of hepatic function must be performed in elderly patients or patients with history of liver disease

Generic Name *Trade name* Dosage form and strengths Concurrent alcohol use	Recommended Adult Dose[A]	Approx. Cost per course[B]	PharmaCare Coverage[C]	Adverse Effects[D]	Therapeutic Considerations
Gabapentin *Neurontin, G* Caps: 100, 300, 400 mg Tabs: 600, 800 mg **Concurrent alcohol use**: Safe to start while using alcohol. Abstinence is recommended.[4]	**Day 1** Daytime dose: 300mg TID Evening dose: 600-1200mg HS PRN dose: 300mg PRN Total daily dose: Up to 2400mg **Day 2-3** Daytime dose: Titrate quickly as tolerated: 600mg TID Evening dose: 600-1200mg HS PRN dose: If symptoms persist: Additional 300mg TID PRN + 600–1200mg HS PRN Total daily dose: Up to 3600mg **Day 4** Daytime dose: When symptoms resolve, taper to 600mg TID Evening dose: 600-900mg HS PRN dose: NA Total daily dose: Up to 2700mg **Day 5** Daytime dose: Taper to zero over next 3-5 days by 600mg per day Abrupt withdrawal is not recommended due to possibility of increased seizure frequency. Gradual reduction is recommended.[1]	$20	Regular benefit	Most common: dizziness, ataxia, slurred speech, drowsiness, peripheral edema	Efficacy:[4] • 2 RCTs report gabapentin (1200 mg/d) is as effective as benzodiazepines in suppressing mild to moderate withdrawal symptoms • May be superior to benzodiazepines for treating insomnia and anxiety symptoms • Insufficient evidence for prevention of seizures or delirium tremens. Contraindication: • Gabapentin hypersensitivity Drug interactions: • Use with opioids may result in respiratory depression, profound sedation, syncope and death[1] Abstinence recommended after starting treatment to ↓ risk of CNS adverse effects Potential for non-medical use: • diversion, using higher doses, combining with other substances to potentiate euphoric effects, inhaled, injected or other routes • documented among opioid using populations and in facilities where access to alcohol and other drugs is restricted (e.g., inpatient treatment programs, correctional facilities)[4] Physiological dependence: • noted only among patients with history of alcohol, stimulant or opioid use disorder and average daily dose ~3000 mg/d (range 600-8000 mg/d) Withdrawal symptoms: • restlessness, disorientation, confusion, agitation, anxiety • does not resolve with administration of benzodiazepines occurred within 12 hours to 7 days of discontinuation

Generic Name *Trade name* Dosage form and strengths Concurrent alcohol use	Recommended Adult Dose[A]	Approx. Cost per course[B]	PharmaCare Coverage[C]	Adverse Effects[D]	Therapeutic Considerations
Alpha adrenergic agonists					
Clonidine *G* Tabs: 0.025, 0.1, 0.2 mg **Concurrent alcohol use**: additive effect on lowering blood pressure. Patients and family may receive education on signs and symptoms of hypotension	**Initial**: 0.1-0.2 mg BID (last dose HS) **Titrate**: Can add 0.2 mg daily if needed **Final**: 0.1-0.6 mg BID[4] May also be considered as an adjunct to carbamazepine, gabapentin or other anticonvulsants.	$3	Regular benefit	Hypotension, dry mouth, dizziness, fatigue, headache, nausea, vomiting, constipation, malaise, sleep disorder, sedation, erectile dysfunction	Efficacy:[4] • 2 RCTs reported clonidine was as effective as benzodiazepines in reducing mild to moderate withdrawal symptoms • Does not prevent seizure or delirium tremens Contraindications: • Sinus node function impairment • Severe bradyarrhythmia • Galactose intolerance Other: • Use for treating mild-moderate withdrawal symptoms in patients at low risk of severe complications • Centrally acting alpha-2 adrenergic agonist that can suppress persistent noradrenergic symptoms (e.g., hypertension, tachycardia) • Safe to use as adjunct to benzodiazepines or other anticonvulsants (no reported safety issues and can manage withdrawal symptoms via different mechanism of action) • Patients should receive education on signs and symptoms of hypotension

Generic Name *Trade name* Dosage form and strengths Concurrent alcohol use	**Recommended Adult Dose**[A]	**Approx. Cost per course**[B]	**PharmaCare Coverage**[C]	**Adverse Effects**[D]	**Therapeutic Considerations**
Benzodiazepines					
Diazepam *Valium, G* Tabs: 2, 5, 10 mg **Concurrent alcohol use**: potentiates the effects of alcohol, can result in serious safety risks e.g., over sedation, falls, delirium, respiratory depression, need for prolonged hospitalization	Day 1: 5-10 mg QID Day 2: 5-10 mg TID Day 3: 5-10 mg BID Day 4: 5-10 mg HS[4]	$2	Regular benefit	Most common: drowsiness, dizziness Other: changes in skin colour, nausea, headache, blurred vision, tremors, hypotension, GI disturbances, memory loss	Efficacy:[4] • Results from a 2010 meta-analysis demonstrate superior efficacy in suppression of withdrawal symptoms compared to placebo and other active treatments • Results from 3 meta-analyses suggest superior efficacy for prevention of seizures compared to placebo and active treatments Contraindications: • Severe respiratory insufficiency (diazepam) • Severe hepatic impairment (diazepam) • Sleep apnea (diazepam) • Myasthenia gravis • Narrow angle glaucoma Other: • Lorazepam is preferred for those with severe respiratory or liver disease and in elderly (consider lower dosing) • Potential for non-medical use, diversion and dependence • Potential for drug-drug interactions leading to excess sedation, impaired psychomotor and cognitive functioning • Exercise caution for outpatient use **Short term use only. Limited to acute phase of alcohol withdrawal**
Lorazepam *Ativan, G* Tabs: 0.5, 1, 2 mg Sublingual tabs: 0.5, 1, 2 mg **Concurrent alcohol use**: potentiates the effects of alcohol, can result in serious safety risks e.g., over sedation, falls, delirium, respiratory depression, need for prolonged hospitalization	Day 1-2: 1-2 mg every 4h Day 3-4: 0.5-1 mg every 4h[4]	$3	Regular benefit		

Abbreviations: **CAP** capsules; **G** generics; **mo** month; **SJS** Stevens-Johnson syndrome **TEN** Toxic epidermal necrolysis **Tab** tablets.

[A] For normal renal and hepatic function. Consult product monograph for detailed dosing instructions and dose adjustments for unique patient populations

[B] Drugs costs are average retail cost of the generic, when available. Current as of Feb 2022 and does not include retail markups or pharmacy fees.

[C] PharmaCare coverage as of Feb 2022 (subject to revision). Regular Benefit: Eligible for full reimbursement*. Limited Coverage: Requires Special Authority to be eligible for reimbursement*. Non-benefit: Not eligible for reimbursement. *Reimbursement is subject to the rules of a patient's PharmaCare plan, including any deductibles. In all cases, coverage is subject to drug price limits set by PharmaCare. See: www.health.gov.bc.ca/pharmacare/plans/index.html and www.health.gov.bc.ca/pharmacare/policy.html for further information.

[D] Not an exhaustive list. Check the product monograph (https://health-products.canada.ca/dpd-bdpp/index-eng.jsp) or an interaction checker (e.g., Lexicomp(c)) before prescribing

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Pharmacotherapy Options for Outpatient Management of Alcohol Withdrawal

- Patients at high risk of severe complications of withdrawal (PAWSS ≥ 4) should be referred to an inpatient facility. (See Recommendation 6: Care Setting for Withdrawal Management in Patients at Low Risk of Severe Complications)
- BCCSU guidelines recommend non-benzodiazepine medications as the preferred approach for outpatient management.
  - Carbamazepine and gabapentin have been shown to be safe and effective for mild-moderate withdrawal symptoms compared to placebo.
  - Use of clonidine as an alternative or adjunctive option is also supported by moderate certainty evidence.
  - There is insufficient evidence that gabapentin, carbamazepine and clonidine are effective for preventing seizures or delirium tremens.
- Limited evidence for valproic acid, should only be used when all other pharmacotherapy options are contraindicated
- Benzodiazepines not a preferred option for outpatient withdrawal management due to side effects, potentiation of alcohol effects, and potential non-medical use and dependence.
- If they are prescribed for outpatient management, following measures should be considered:
  - Short course (3-7d) with fixed-dose schedule
  - Daily dispense from a pharmacy
  - Frequent clinical visits to closely monitor adverse effects, symptoms, alcohol use and make dose adjustments as needed.
- For additional details, please refer to section 5 and pharmacotherapy tables available at BCCSU guidelines

Appendix B: Pharmacotherapy for Alcohol Use Disorder

Generic Name *Trade name* Dosage form and strengths Concurrent alcohol use	Recommended Adult Dose[A]	Approx. Cost per month[B]	PharmaCare Coverage[C]	Adverse Effects[D]	Therapeutic Considerations
First line agents[4] • Naltrexone recommended for patients who have treatment goal of either abstinence or a reduction in alcohol consumption • Acamprosate is recommended for patients who have a treatment goal of abstinence					
Naltrexone *Revia, G* Tabs: 50 mg **Concurrent alcohol use**: Safe to start while using alcohol, may ↑ effectiveness ↓ adverse events if started 3-7 days abstinence[4] Note: IM naltrexone is not available in Canada	**Initial**: 12.5 - 25 mg PO daily x 1-2 weeks **Usual/Target**: 50 mg PO daily **Maximum**: 100 mg PO daily.[4] Administration: May begin treatment while patient is still drinking. Treatment should not be attempted until patient has remained opioid-free for 7-10 days. A slower titration may be indicated if intolerable GI symptoms or headache occur during initiation. Limited evidence suggests a higher dose of naltrexone may be safe, with safety and tolerability demonstrated at an increased dosage of 100–150mg/day.[11,12] Dose may be increased to a maximum of 150mg per day if liver enzymes are within normal range and patient is continuing to experience cravings at 50mg per day.	$100	Regular benefit	Most common: nausea, headache, dizziness Other: sleep disturbances, decreased appetite, abdominal pain, elevated liver enzymes (dose related) ADRs are generally mild, subside over time, may be avoided if naltrexone started at lower dose and/or if patient is abstinent from alcohol[4] Acute hepatitis or liver failure: Naltrexone has capacity to cause dose related hepatocellular injury. Prior to treatment, clinician should establish whether patient has subclinical liver injury or disease.[1]	Efficacy:[4] • NNT = 20 to prevent return to any drinking (relapse) • NNT = 12 to prevent return to heavy drinking Contraindications: • Naltrexone hypersensitivity • **Current opioid use, including prescribed opioids (e.g., opioid agonist treatment) or illicit opioids** • Acute hepatitis or liver failure Monitoring: • LFTs at initiation, 1 mo, 3 mo and 6 mo. More frequent monitoring if LFTs elevated Short term opioid use: • If opioid pain management is anticipated (e.g., elective surgery), discontinue oral naltrexone ≥ 3 days prior to surgery.[2] Patient counselling: • Patients should be aware that they may be more sensitive to lower doses of opioids after discontinuation of naltrexone. • Due to risk of hepatic injury, advise patients on signs of acute hepatitis and to stop treatment if symptoms appear

Generic Name *Trade name* Dosage form and strengths Concurrent alcohol use	**Recommended Adult Dose**[A]	**Approx. Cost per month**[B]	**PharmaCare Coverage**[C]	**Adverse Effects**[D]	**Therapeutic Considerations**
Acamprosate *Campral* Tabs: 333 mg **Concurrent alcohol use**: Safe to start while using alcohol, may ↑ effectiveness if started 3-7 days abstinence[4]	**Initial/Usual/Max**: 666 mg PO three times per day	$160	Regular benefit	Most common: diarrhea Less common: vomiting, abdominal pain Usually transient and resolve quickly Rare: suicidal ideation	Efficacy:[4] • NNT = 12 to prevent return to any drinking (relapse) • Not associated with improvement in alcohol consumption Contraindications: • Acamprosate hypersensitivity • Severe renal impairment CrCl ≤ 30 mL/min • Nursing women
Second line agents					
Topiramate *Topamax, G* Tabs: 25, 50, 100, 200 mg Sprinkle cap: 15, 25 mg **Concurrent alcohol use**: Safe to start while using alcohol	*Off-label* **Week 1**: 25 mg PO PM **Week 2-3**: 25 mg PO BID **Week 3-4**: 50 mg PO BID **Max**: 400mg/d Gradual dose titration to reduce AE. If doses above 100mg/d are required, may increase 50mg/d weekly.	$15-45	Regular benefit	Most common: psychomotor slowing, difficulty concentrating, speech problems, somnolence, fatigue, irritability, depression Adverse effects more likely with higher doses or with rapid increases in dosage[3]	Efficacy:[4] • 7 RCTs reported small to moderate effects on abstinence and heavy drinking outcomes compared to placebo • 3 trials reported topiramate is as effective or superior to naltrexone for abstinence, heavy drinking and craving outcomes Contraindications:[4] • Topiramate hypersensitivity • Pregnant or planning to be pregnant • Narrow angle glaucoma • History of nephrolithiasis

Generic Name *Trade name* Dosage form and strengths Concurrent alcohol use	**Recommended Adult Dose**[A]	**Approx. Cost per month**[B]	**PharmaCare Coverage**[C]	**Adverse Effects**[D]	**Therapeutic Considerations**
Gabapentin *Neurontin, G* Caps: 100, 300, 400, 600, 800 mg **Concurrent alcohol use**: Safe to start while using alcohol. May be better outcomes if started ≥ 3 days abstinent.[4]	*Off-label* **Initial**: 100-300 mg PO TID **Max**: 1800mg/d Abrupt withdrawal is not recommended due to possibility of increased seizure frequency. Gradual reduction is recommended.[1]	$20	Regular benefit	Most common: dizziness, ataxia, slurred speech, drowsiness, peripheral edema Physiological dependence: • noted only among patients with history of alcohol, stimulant or opioid use disorder and average daily dose ~3000 mg/d (range 600-8000 mg/d) Withdrawal symptoms: • restlessness, disorientation, confusion, agitation, anxiety • does not resolve with administration of benzodiazepines • occurred within 12 hours to 7 days of discontinuation	Efficacy:[4] • 3 RCTs reported small to moderate effects on abstinence and heavy drinking outcomes, craving, mood and insomnia compared to placebo • One RCT (long-acting formulation) found no difference in alcohol consumption or craving compared to placebo Contraindication: • Gabapentin hypersensitivity Drug interactions: • Concomitant use of gabapentin with opioids and other CNS depressants may result in respiratory depression, profound sedation, syncope and death[1] Potential for non-medical use: • diversion, using higher doses, combining with other substances to potentiate euphoric effects, inhaled, injected or other routes • documented among opioid using populations and in facilities where access to alcohol and other drugs is restricted (e.g., inpatient treatment programs, correctional facilities)[4] Recommend: • Abstinence recommended after starting treatment to ↓ risk of CNS adverse effects • If diversion or misuse is a concern, prescriber can consider daily, weekly or biweekly dispense from a pharmacy, or blister packing with random pill count checks.

Generic Name *Trade name* Dosage form and strengths Concurrent alcohol use	Recommended Adult Dose[A]	Approx. Cost per month[B]	PharmaCare Coverage[C]	Adverse Effects[D]	Therapeutic Considerations
Disulfiram *Compounded product* *Antabuse is discontinued* **Concurrent alcohol use**: contraindicated. Must be abstinent at least ≥ 12 h	**Initial/Usual**: 250 mg PO daily **Max**: 500 mg PO daily Commercial product cancelled post marketing. Available only through specialty compounding pharmacies.	Call pharmacy $50	Regular benefit	Absence of alcohol, most common side effects: drowsiness, skin eruptions (acne, dermatitis), fatigue, erectile dysfunction, headache, metallic/garlic after taste Severe but less common: hepatotoxicity Presence of alcohol: Causes disulfiram reaction when combined with alcohol. Symptoms are proportion to amount of alcohol consumed. Not recommended	Efficacy:[4] • 5 RCTs reported disulfiram no more effective than placebo in supporting abstinence or preventing relapse • 2014 meta-analysis concluded disulfiram is effective in supporting abstinence if administered under structured and supervised conditions Contraindications: • Concurrent or recent use of metronidazole or alcohol • Alcohol intoxication • Severe myocardial disease, coronary occlusion • Active psychosis Drug interactions: • warfarin, isoniazid, metronidazole, phenytoin Not commonly used due to adverse effects. Not recommended except in specific circumstances for highly motivated patients Recommend patients carry an identification card listing symptoms of disulfiram alcohol reaction and contact information in cases of emergency

Abbreviations: **CAP** capsules; **CrCl** creatinine clearance; **G** generics; **LFT** liver function tests; **mo** month; **Tab** tablets.

[A] For normal renal and hepatic function. Consult product monograph for detailed dosing instructions and dose adjustments for unique patient populations

[B] Drugs costs are average retail cost of the generic, when available. Current as of Feb 2022 and does not include retail markups or pharmacy fees.

[C] PharmaCare coverage as of Feb 2022 (subject to revision). Regular Benefit: Eligible for full reimbursement*. Limited Coverage: Requires Special Authority to be eligible for reimbursement*. Non-benefit: Not eligible for reimbursement. *Reimbursement is subject to the rules of a patient's PharmaCare plan, including any deductibles. In all cases, coverage is subject to drug price limits set by PharmaCare. See: www.health.gov.bc.ca/pharmacare/plans/index.html and www.health.gov.bc.ca/pharmacare/policy.html for further information.

[D] Not an exhaustive list. Check the product monograph (https://health-products.canada.ca/dpd-bdpp/index-eng.jsp) or an interaction checker (e.g., Lexicomp(c)) before prescribing

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Appendix C: Common Types of Interactions Between Alcohol and Medications

There are many interactions between alcohol and various classes of medications. The following table lists common types of interactions that can occur with some examples provided. This is not a comprehensive list. Further information about specific drugs can be found on the National Institute on Alcohol Abuse and Alcoholism website. Alternatively, the Lexicomp drug interaction checker may also be used for a direct interaction check with alcohol. Please note that interactions may be different based on acute versus chronic use of alcohol.

Interaction	Examples	Description
Additive CNS depression and sedation	Benzodiazepines Opioids Antihistamines Cyclobenzaprine Herbal medications Gabapentin	• Alcohol enhances the effects of these agents on the central nervous system (CNS), such as drowsiness, sedation, and decreased motor skills. • The interactions are often more pronounced in elderly people
Disulfiram-like reactions	Disulfiram Metronidazole Ceftriaxone Trimethoprim/ sulfamethoxazole	• Build up of acetaldehyde can cause facial flushing, tachycardia, diaphoresis and pounding headache
Increased liver toxicity	Statins Isoniazid Valproic acid High doses of acetaminophen	• Alcohol consumption increases risk of liver damage which can be compounded by different medications
Increased bleed risk	NSAIDs	• Alcohol consumption increases the associated risk of gastrointestinal bleeding.
Increased risk of hypotension and falls	Vasodilators (nitroglycerin)	• Increased risk of falls with chronic alcohol use (see BCGuideline: Fall Prevention: Risk Assessment and Management for Community-Dwelling Older Adults)
Altered drug levels	Warfarin Phenytoin	• Acute alcohol intake may increase anticoagulation by decreasing warfarin metabolism • Chronic alcohol ingestion decreases anticoagulation by increasing warfarin metabolism • Acute intake of alcohol increases phenytoin serum concentrations • Chronic intake of alcohol decreases phenytoin serum concentrations

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