Alcohol Use Disorder (AUD): Diagnosis & Treatment

Pan-Northern Clinical Rounds: NOSM-U

November 1st, 2023

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Objectives

Outline the prevalence of Alcohol Use Disorder (AUD) in Northern Ontario and its impact on health care utilization, productivity costs, etc.

Review the primary care needs assessment data as it relates to AUD treatment/management

Describe evidence-based withdrawal management strategies

Describe evidence based and off-label long-term treatment of AUD

Disclosures of Affiliations, Financial Support and Mitigating Bias

Jared Bonis

- Employee of Health Sciences North and Stonehenge Therapeutic Community
- I have received an honorarium from Meta: PHI for clinical guideline review and content creation

Dr. Tara Leary

- Contract position with NOSM U and Health Sciences North
- Have active NOAMA grants
- I have received honoraria from Takeda Canada and Indivior Canada

Paola Nikodem

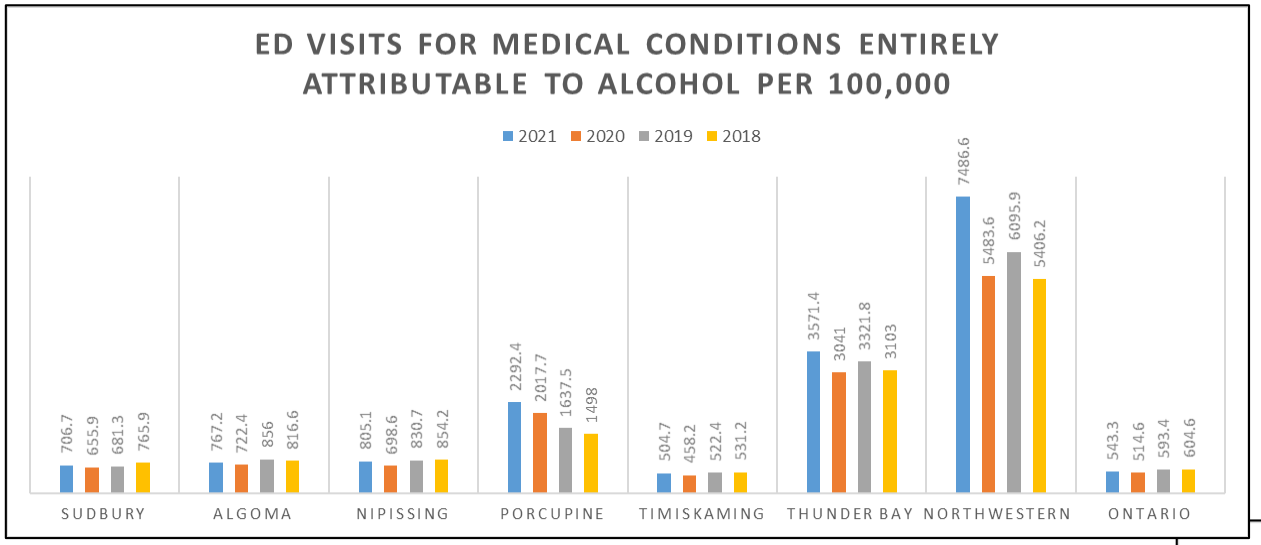
- Employee of Health Sciences North

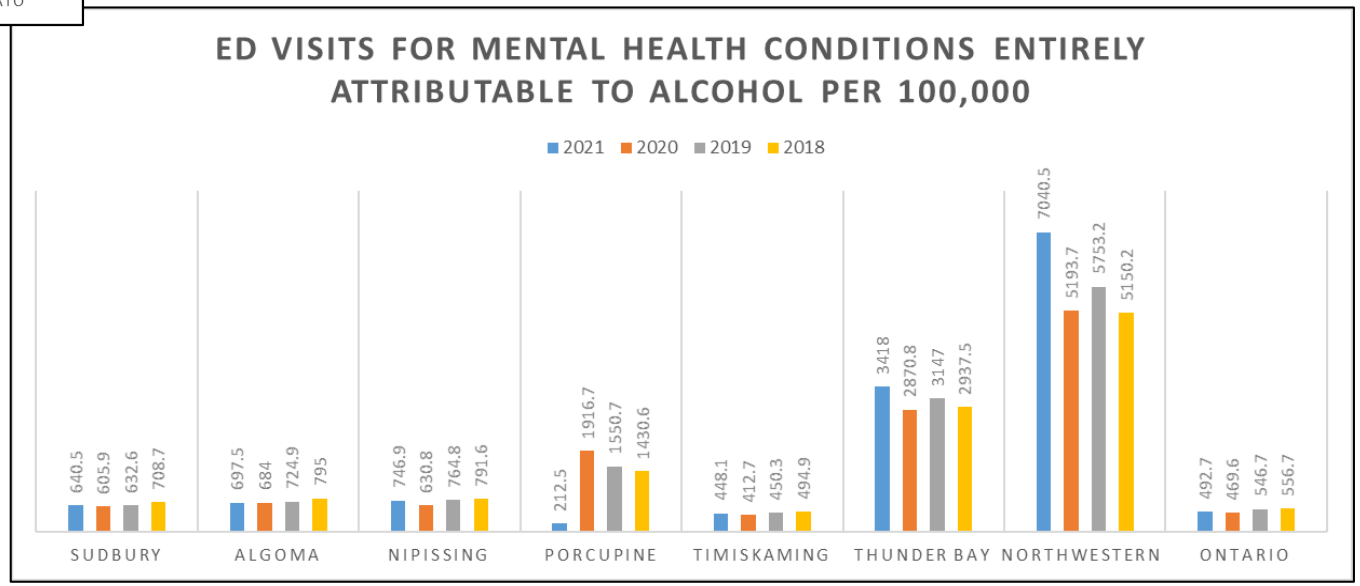
Financial Support: This session has not received financial or in-kind support

Prevalence & impact of AUD - Nationally

- **Three in four Canadian adults drink alcohol.**
- Canadians aged 20 to 24 years (84.4%) were most likely to report drinking alcohol.
- 21% (4.8 million people) experienced at least one alcohol-related harm in the past year.
- The 3,180.1 million litres of alcohol sold in 2020/2021 could fill 1,272 Olympic-sized swimming pools and was the equivalent of 9.7 standard alcoholic beverages a week per Canadian of legal drinking age.
- Canadian households spent an average of $1,125 on alcoholic beverages in 2019, 71.0% was spent at stores and 28.4% was spent at restaurants or bars.
- Liquor authorities sold $25.5 billion worth of alcoholic beverages in 2020/2021, up 4.2% from a year earlier and the largest sales increase in over a decade.
    - Beer remained the alcoholic beverage of choice for Canadians, accounting for 36.0% of total alcohol sales; wine accounted for 31.4%; spirits (25.4%); ciders and coolers (7.2%).
- The share of Canadians aged 65 years and older who reported heavy drinking rose from 6.7% in 2015 to 7.9% in 2021.

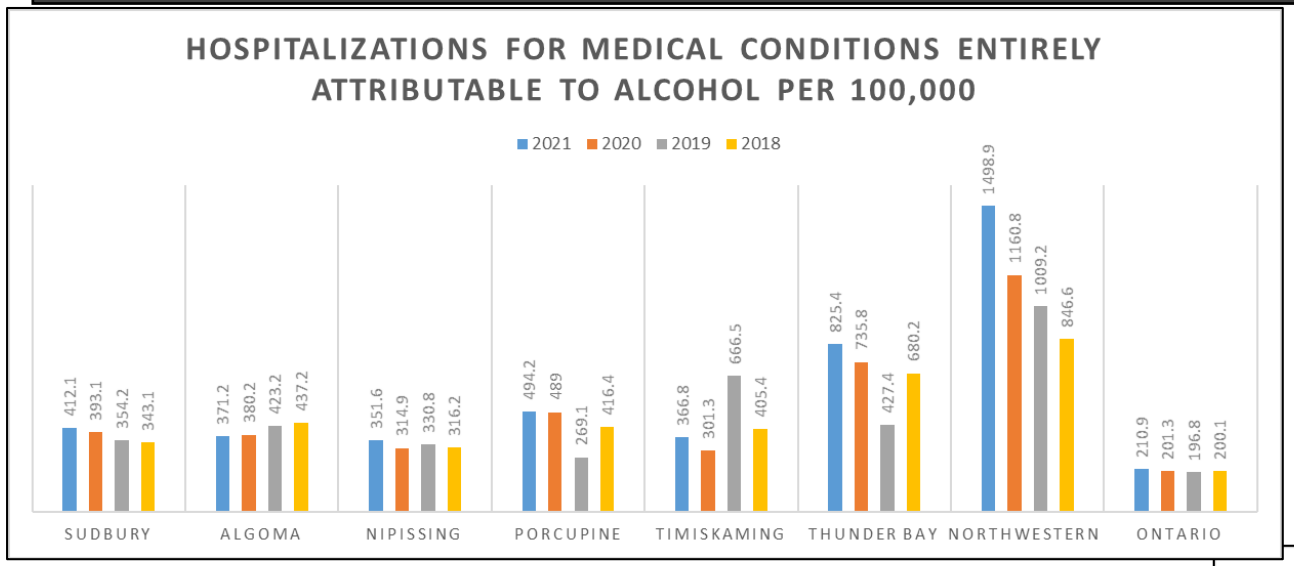
ED visits attributable to alcohol in the North



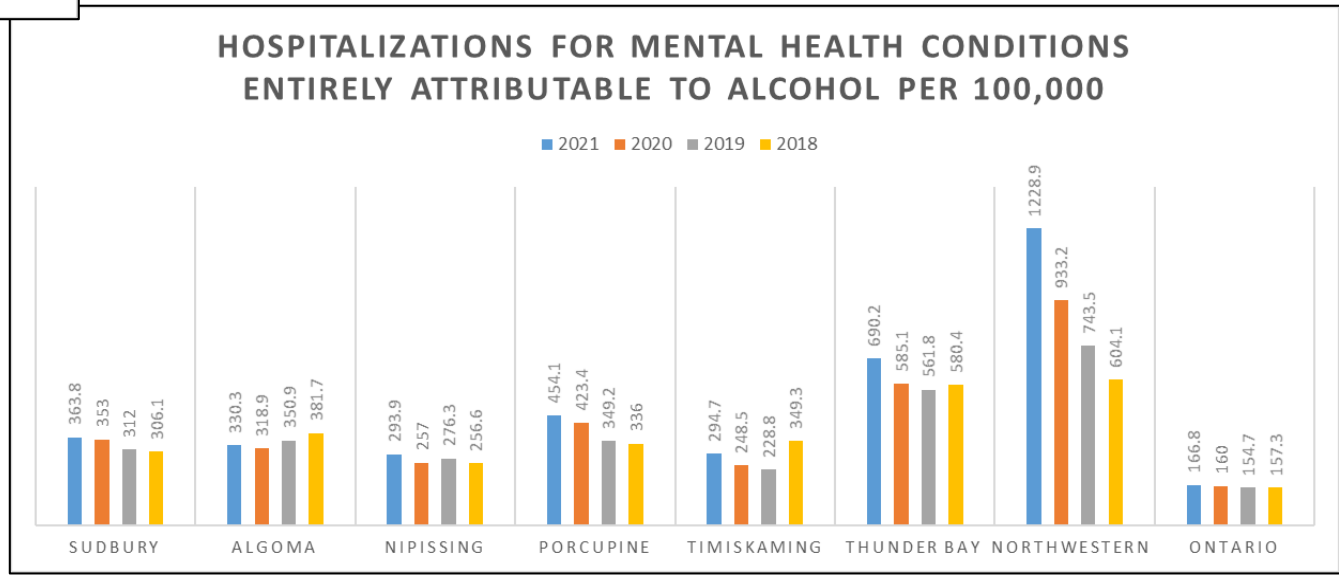


(PHO, 2023)

Hospitalizations attributable to alcohol in the North



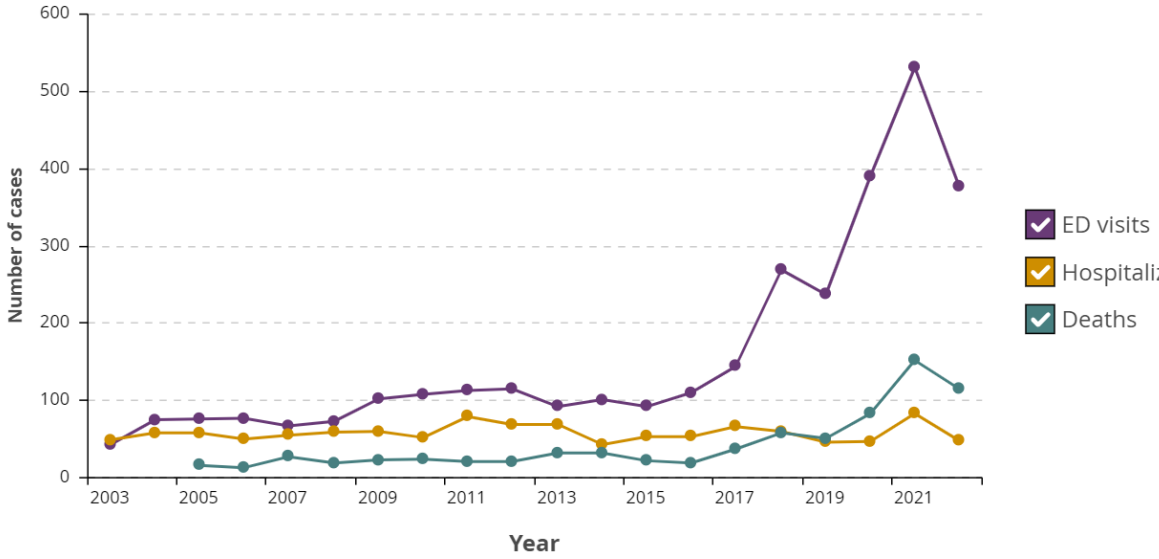
Post-discharge outcomes for alcohol-related hospitalizations are worse in rural vs. urban communities in Northern Ontario (Friesen et al 2022)



(PHO, 2023)

Opioid related ED visits, hospitalizations & deaths

Cases of opioid-related morbidity and mortality, North West LHIN, 2003 – 2022



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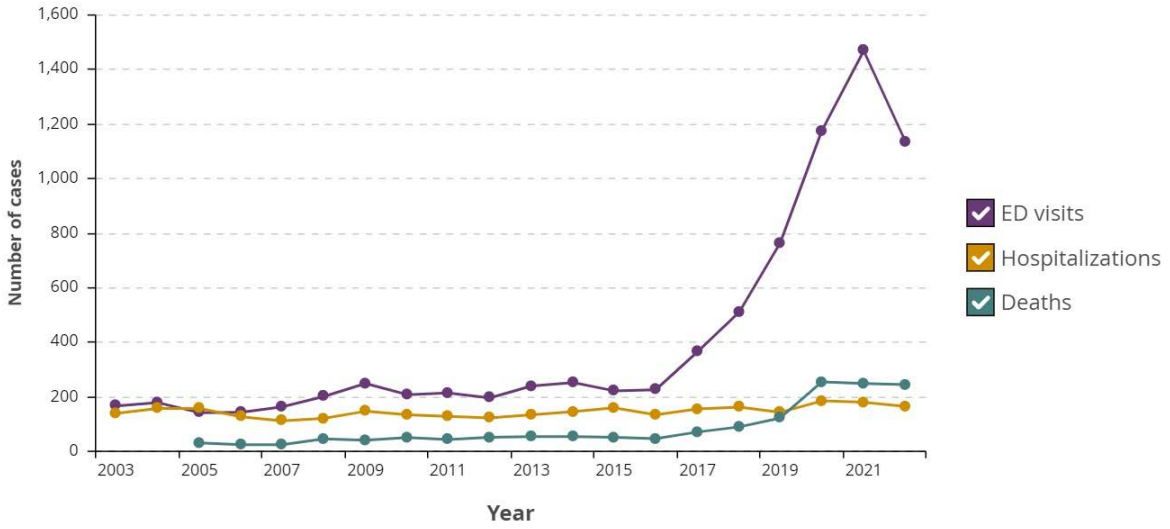
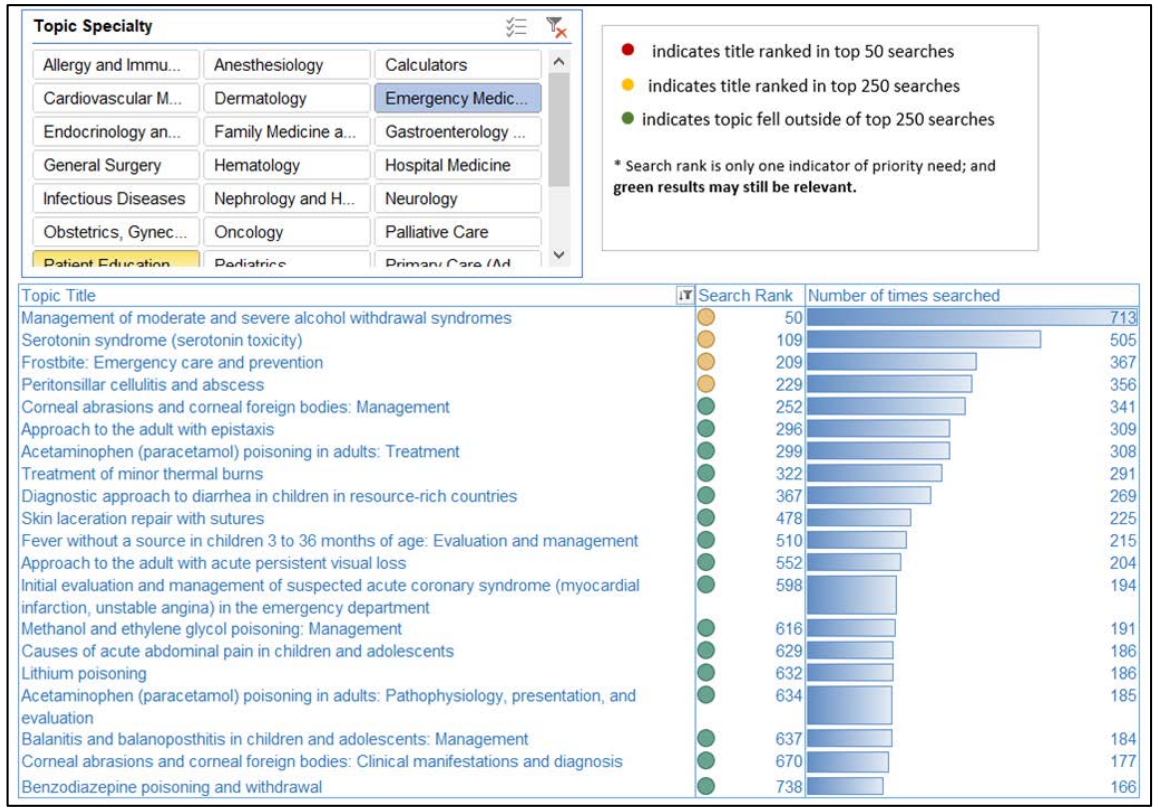


(PHO, 2023)

Needs Assessment

- Jan-Dec 2022 – most searched resource for emergency medicine in UpToDate was "Management of moderate and severe alcohol withdrawal symptoms (NOSMU License)
- Completed Needs Assessment in summer of 2023 to support the creation of simulation-based education for substance use
- Prescribers were invited via an OMA email blitz (NE/NW), NE Ontario Primary Care NPs and NE community of practice for NPs
- 63 responses: 56% physicians; 41% nurse practitioner



Topic Specialty

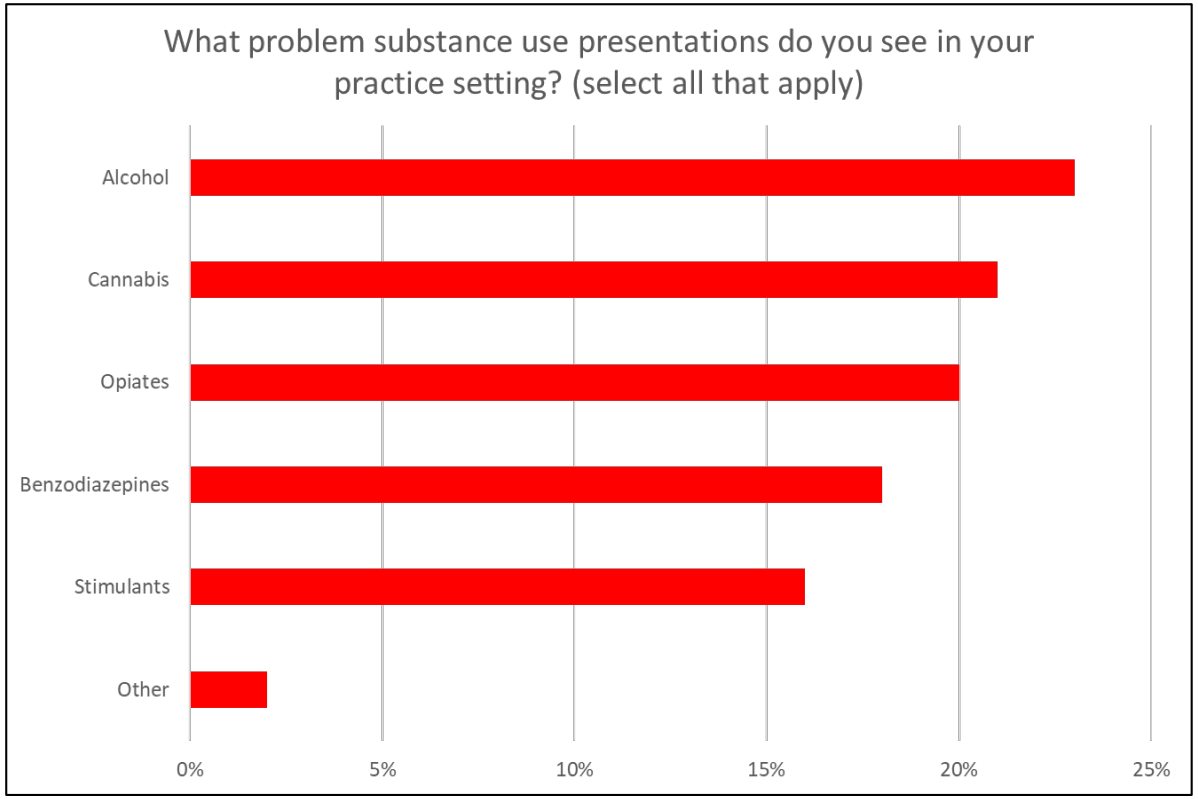
Allergy and Immu...	Anesthesiology	Calculators
Cardiovascular M...	Dermatology	Emergency Medic...
Endocrinology an...	Family Medicine a...	Gastroenterology ...
General Surgery	Hematology	Hospital Medicine
Infectious Diseases	Nephrology and H...	Neurology
Obstetrics, Gynec...	Oncology	Palliative Care
Patient Education	Pediatrics	Primary Care (Ad

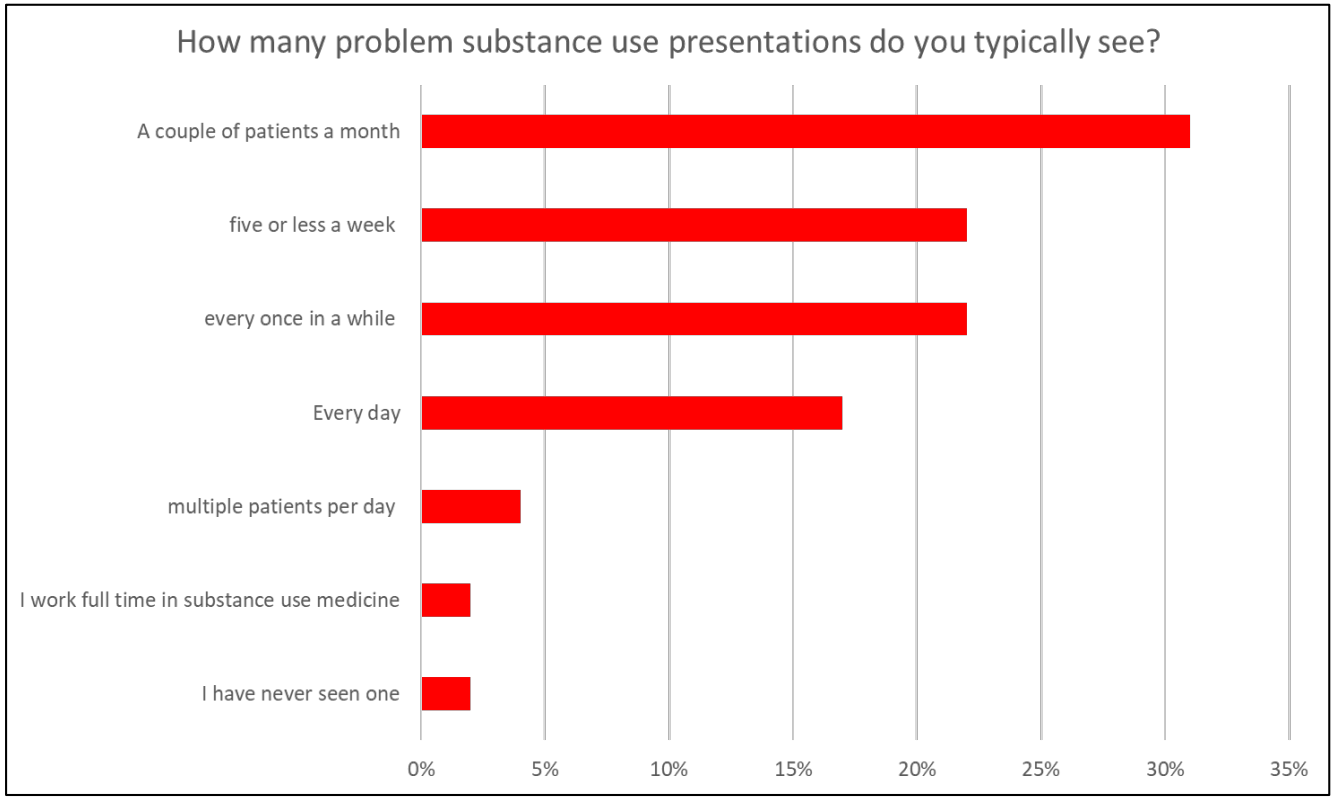
- indicates title ranked in top 50 searches
- indicates title ranked in top 250 searches
- indicates topic fell outside of top 250 searches

* Search rank is only one indicator of priority need; and **green results may still be relevant.**

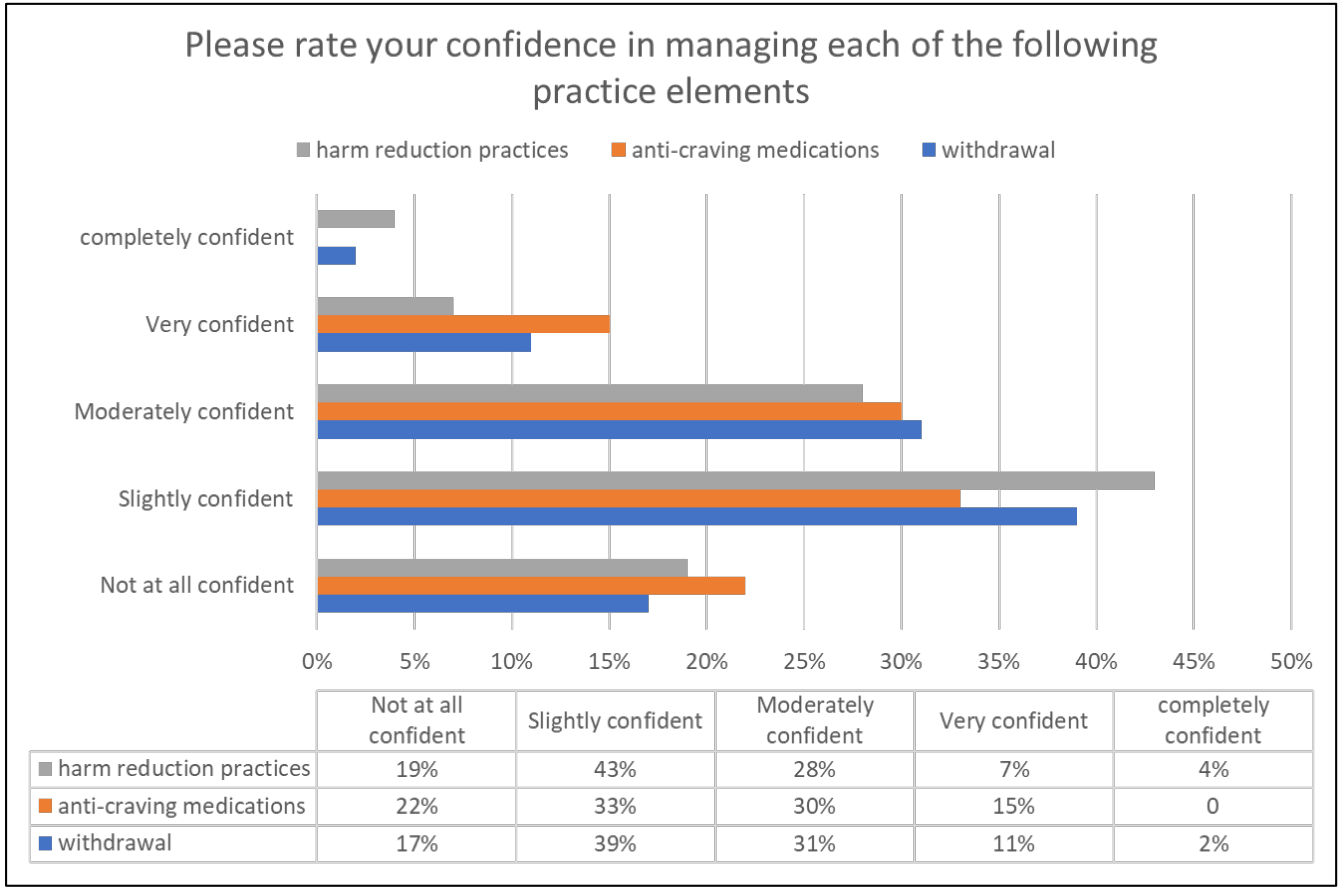
Topic Title	Search Rank	Number of times searched
Management of moderate and severe alcohol withdrawal syndromes	50	713
Serotonin syndrome (serotonin toxicity)	109	505
Frostbite: Emergency care and prevention	209	367
Peritonsillar cellulitis and abscess	229	356
Corneal abrasions and corneal foreign bodies: Management	252	341
Approach to the adult with epistaxis	296	309
Acetaminophen (paracetamol) poisoning in adults: Treatment	299	308
Treatment of minor thermal burns	322	291
Diagnostic approach to diarrhea in children in resource-rich countries	367	269
Skin laceration repair with sutures	478	225
Fever without a source in children 3 to 36 months of age: Evaluation and management	510	215
Approach to the adult with acute persistent visual loss	552	204
Initial evaluation and management of suspected acute coronary syndrome (myocardial infarction, unstable angina) in the emergency department	598	194
Methanol and ethylene glycol poisoning: Management	616	191
Causes of acute abdominal pain in children and adolescents	629	186
Lithium poisoning	632	186
Acetaminophen (paracetamol) poisoning in adults: Pathophysiology, presentation, and evaluation	634	185
Balanitis and balanoposthitis in children and adolescents: Management	637	184
Corneal abrasions and corneal foreign bodies: Clinical manifestations and diagnosis	670	177
Benzodiazepine poisoning and withdrawal	738	166

Needs assessment results

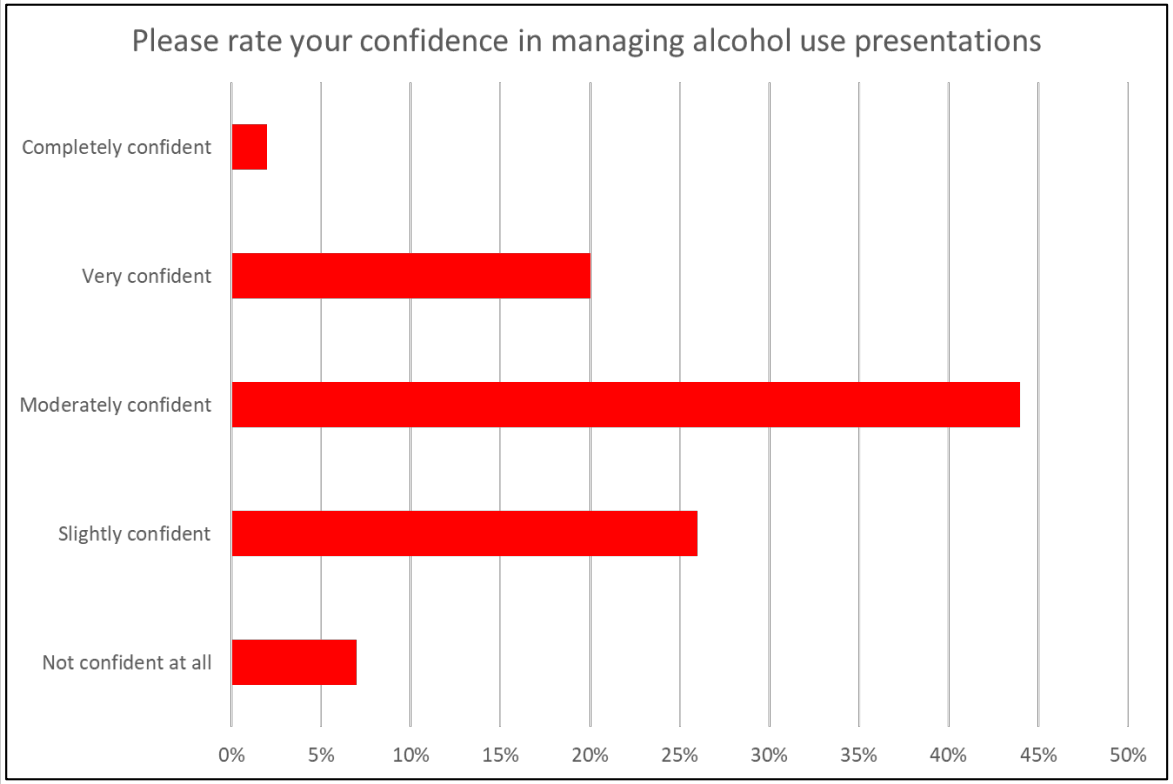




Needs assessment results

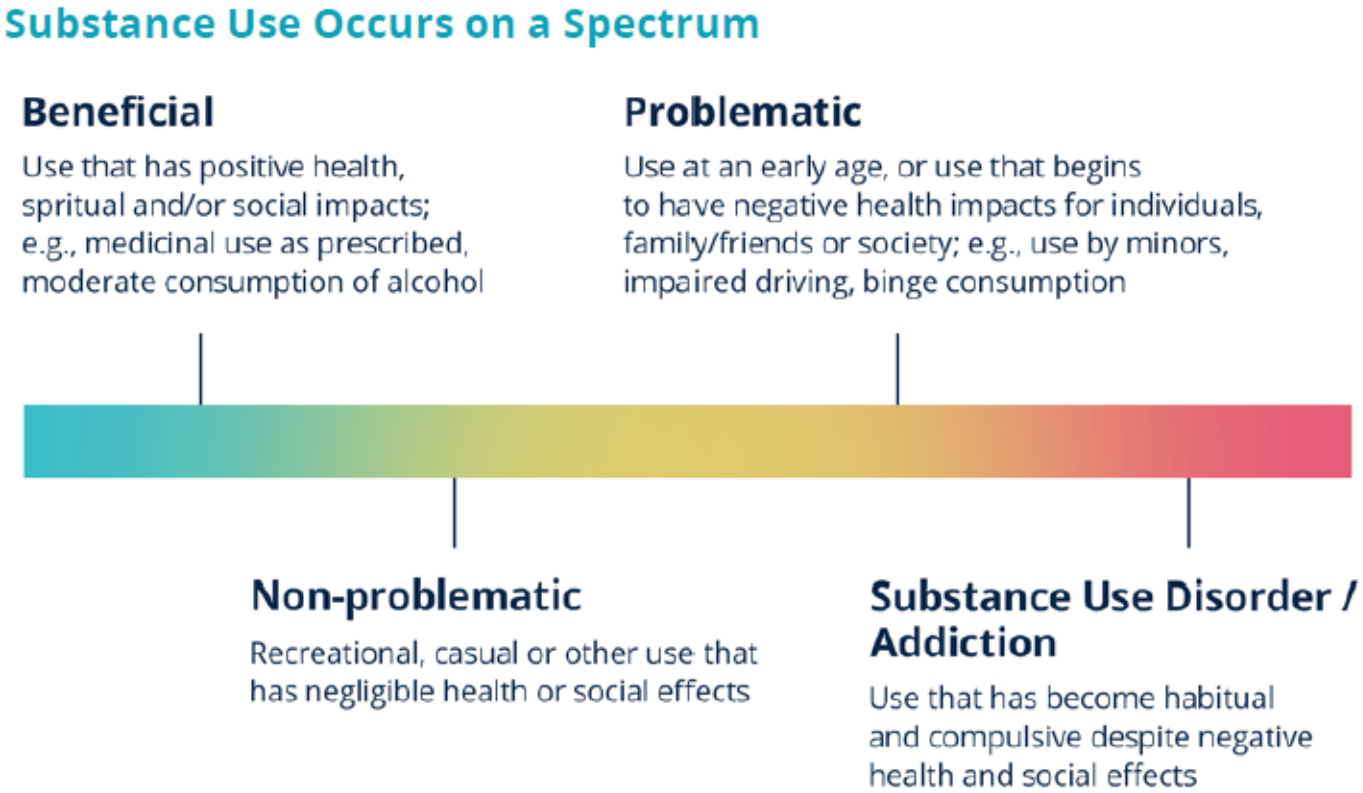


	Not at all confident	Slightly confident	Moderately confident	Very confident	completely confident
harm reduction practices	19%	43%	28%	7%	4%
anti-craving medications	22%	33%	30%	15%	0
withdrawal	17%	39%	31%	11%	2%



Considerations for your practice

Spectrum of Substance Use



What is a "Standard Drink?"

Canada's Low-Risk Alcohol Drinking Guidelines: Standard Drink

Quick review: what is a "standard drink"?[1]

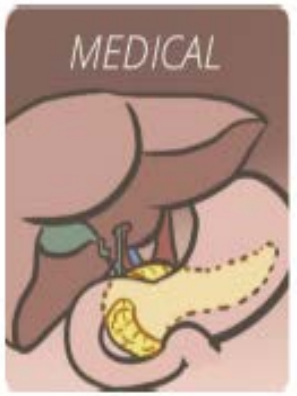
Beer:
12 oz or 341 mL
5% alcohol content

Coolers and cider:
12 oz or 341 mL
5% alcohol content

Wine:
5 oz or 142 mL
12% alcohol content

Distilled Alcohol:
(rye, gin, rum, etc.)
1.5 oz or 43 mL
40% alcohol content

Signs & complications of alcohol use



- MCV >96
- Elevated GGT, AST, ALT (especially AST:ALT >2.1)
- Potential comorbidities beyond the liver: hypertension, GERD, coagulopathies, osteoporosis

- Cognitive impairment or decline
- Mood, anxiety or sleep disorder (preexisting or substance induced)
- Significant behavioural changes

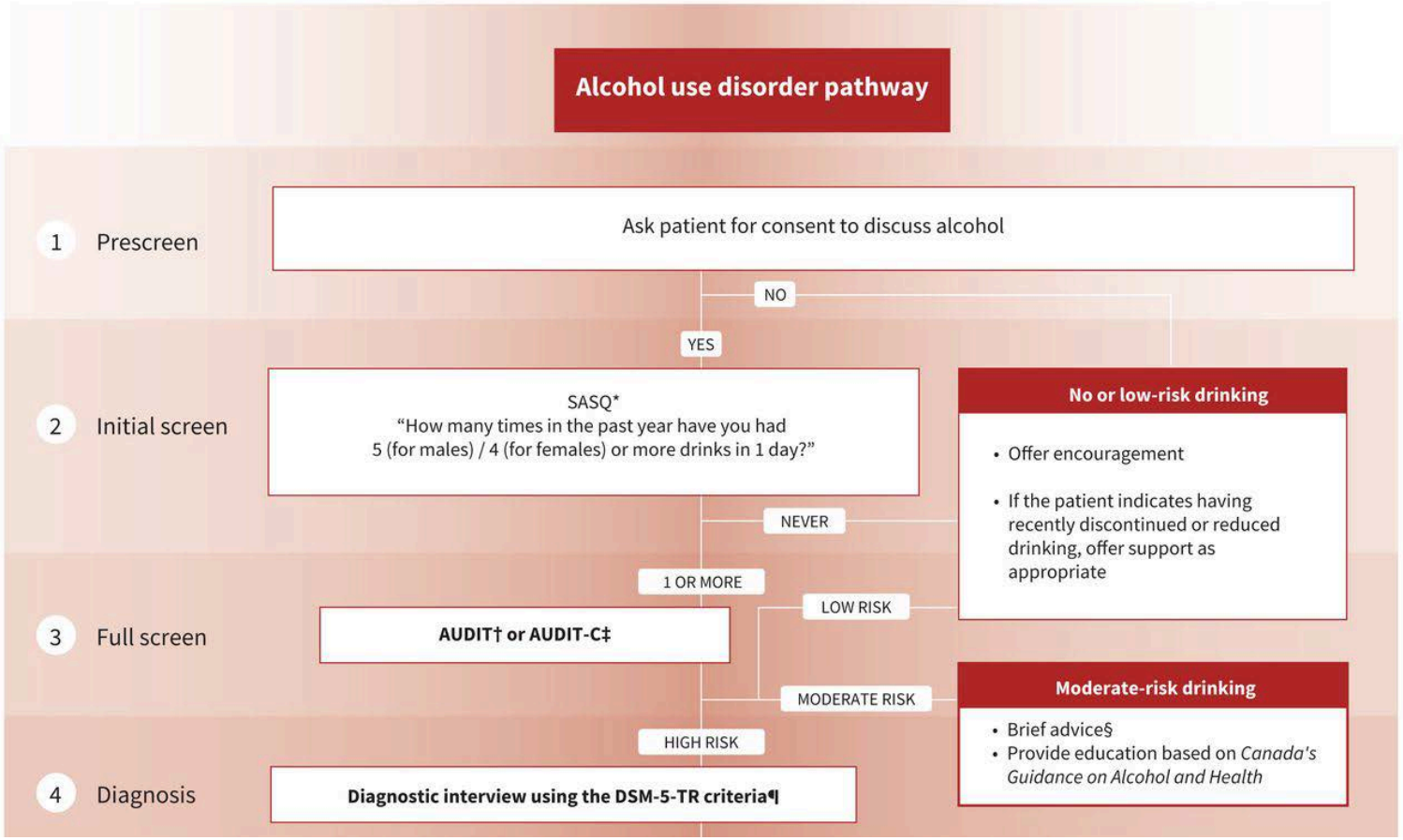
- Unexplained time off work/loss of employment (school or other)
- Frequent absences from appointments, poor medication adherence
- Significant life event (e.g., divorce, loss of loved one)
- Recent or recurrent trauma or domestic violence
- High-risk behaviours

2023 Canadian Guidelines

#1-4 (of 15)

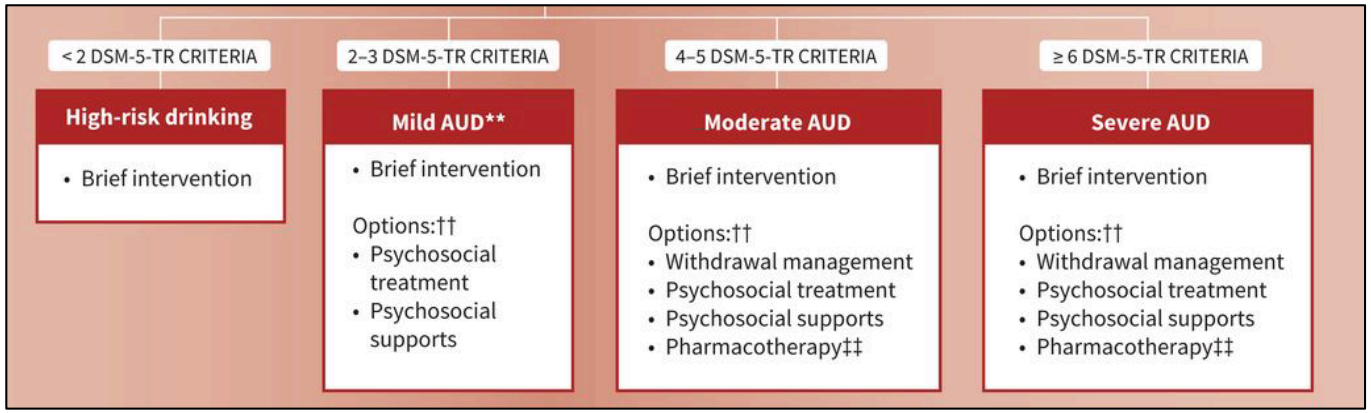
	Recommendation	Strength of recommendation	Certainty of evidence
Screening			
1	When appropriate, clinicians should inquire about current knowledge of, and offer education to adult and youth patients about Canada's Guidance on Alcohol & Health, to facilitate conversations about alcohol use	Strong	Low
2	All adult and youth patients should be screened routinely for alcohol use above low risk	Strong	Moderate
Diagnosis			
3	All adult and youth patients who screen positive for high-risk alcohol use should undergo a diagnostic interview for AUD using the DSM-5-TR criteria and further assessment to inform a treatment plan, if indicated	Strong	Low
Brief Intervention			
4	All patients who screen positive for high-risk alcohol use should be offered brief intervention	Strong	Moderate

Screening & Diagnosing AUD



Diagnosing AUD

A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by **at least 2 of 11 criteria** of DSM-5 within a 12-month period.



Someone with AUD often has these four characteristics:

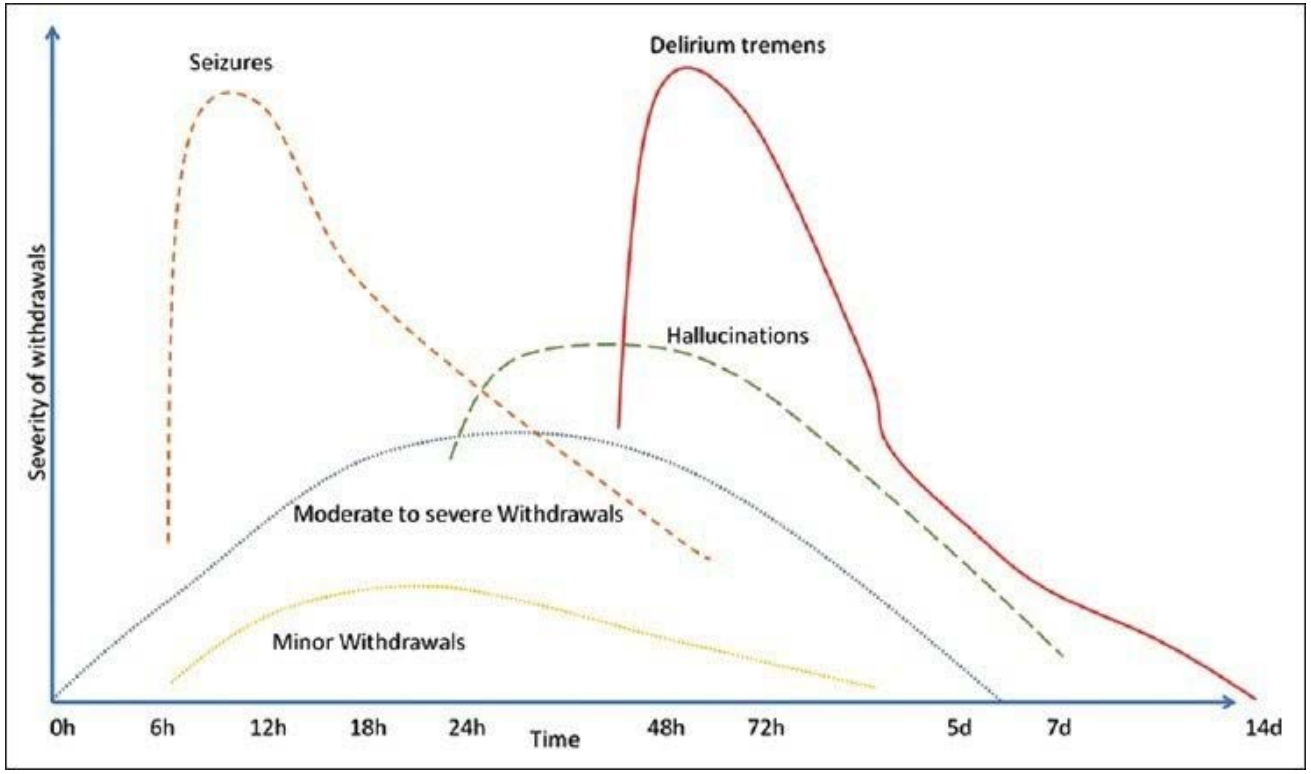
1. Cannot control drinking
2. Continue to drink despite knowing its harmful
3. Spend a lot of time drinking
4. Powerful urges or cravings to drink

First steps after diagnosis

- Make a "treatment plan" around the **patients'** goals (i.e. reduction, abstinence) and their **level of readiness.**
- Reinforce that like other chronic illnesses, AUD is hard to manage on your own without treatment
- Many patients are often concerned about their mood (depression, anxiety) and sleep without alcohol – in fact, these things improve with time!
  - Canadian guidelines (2023) recommend not prescribing medications for depression or anxiety
  - Brown & Schukit (1988) study – recommends deferring medications for depression/anxiety until after 4 weeks of abstinence
- Explore strategies for coping with cravings: keep busy, keep routine, attend groups, regular sleeping, exercise, take medications, avoid HALT, know triggers
- Thiamine & folic acid daily supplementation
- Withdrawal management then long-term medications

Withdrawal Management

What does alcohol withdrawal look like?



Screening for withdrawal complications

Prediction of Alcohol Withdrawal Severity Scale (PAWSS)

Maldonado et al, 2015

Part A: Threshold Criteria: ("Y" or "N", no point)

Have you consumed any amount of alcohol (i.e., been drinking) within the last 30 days? OR did the patient have a "+" BAL on admission? _____

IF the answer to either is YES, proceed with test:

Part B: Based on patient interview: (1 point each)

1. Have you been recently intoxicated/drunk, within the last 30 days? _____
2. Have you ever undergone alcohol use disorder rehabilitation treatment or treatment for alcoholism? _____
   (i.e., in-patient or out-patient treatment programs or AA attendance)
3. Have you ever experienced any previous episodes of alcohol withdrawal, regardless of severity? _____
4. Have you ever experienced blackouts? _____
5. Have you ever experienced alcohol withdrawal seizures? _____
6. Have you ever experienced delirium tremens or DT's? _____
7. Have you combined alcohol with other "downers" like benzodiazepines or barbiturates, during the last 90 days? _____
8. Have you combined alcohol with any other substance of abuse, during the last 90 days? _____

Part C: Based on clinical evidence: (1 point each)

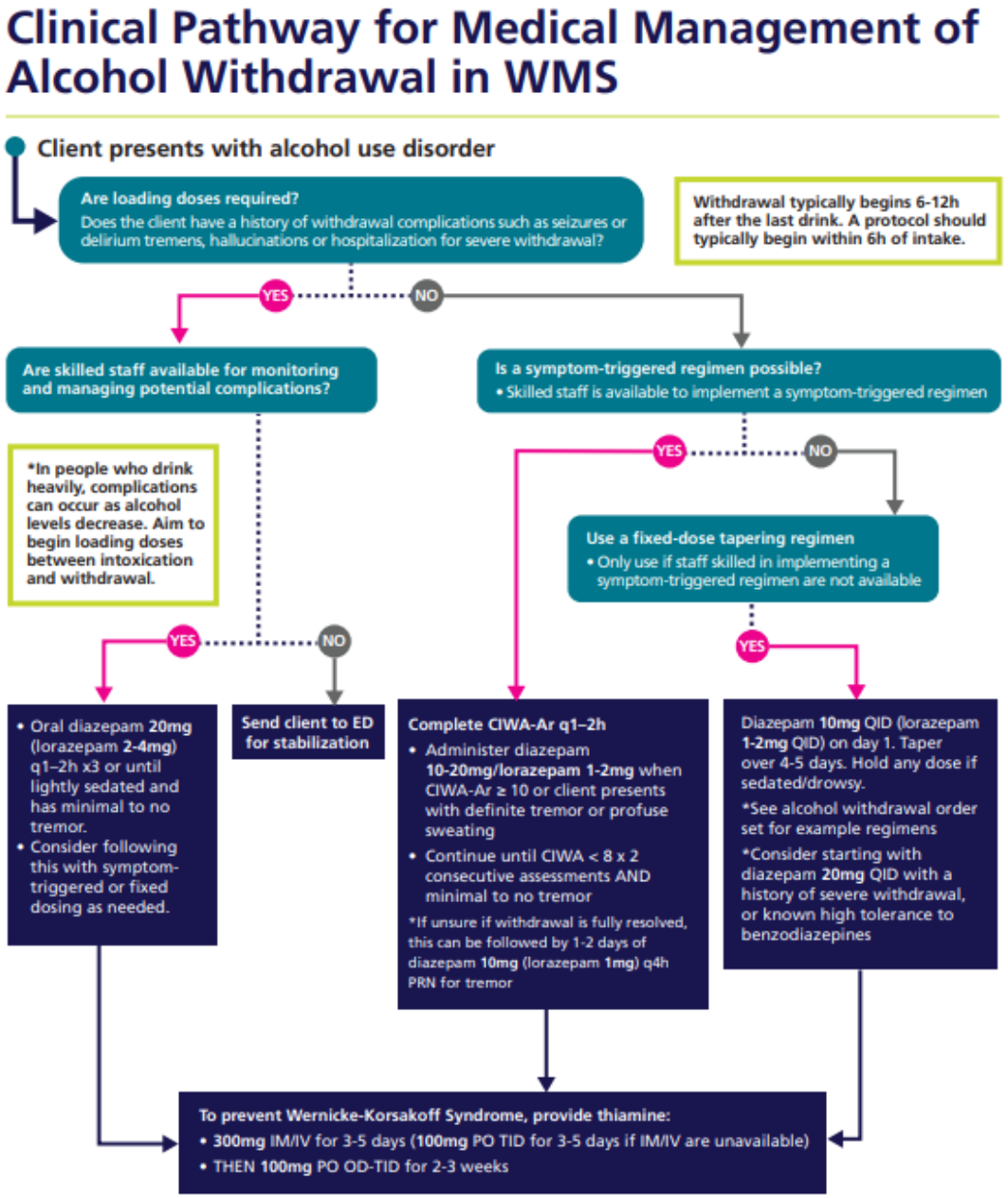
9. Was the patient's blood alcohol level (BAL) on presentation ≥ 200? _____
10. Is there evidence of increased autonomic activity? _____
    (e.g., HR > 120 bpm, tremor, sweating, agitation, nausea)

Total Score: _____

Notes: Maximum score = 10. This instrument is intended as a SCREENING TOOL. The greater the number of positive findings, the higher the risk for the development of AWS.
A score of ≥ 4 suggests HIGH RISK for moderate to severe (complicated) AWS; prophylaxis and/or treatment may be indicated.

CMAJ Recommendations 6 & 7

Medications for alcohol withdrawal



Alcohol Tapering

Pharmacotherapy for long-term reduction or abstinence of alcohol use

2023 Canadian Guidelines: pharmacotherapy

Treatment and ongoing care			
Psychosocial treatment interventions			
9	Adult and youth patients with mild to severe AUD should be offered information about and referrals to specialist-led psychosocial treatment interventions in the community.	Strong	Moderate
Pharmacotherapy			
10	Adult patients with moderate to severe AUD should be offered naltrexone or acamprosate as a first-line pharmacotherapy to support achievement of patient-identified treatment goals.	Strong	High
	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.		
11	Adult patients with moderate to severe AUD who do not benefit from, have contraindications to, or express a preference for an alternate to first-line medications can be offered topiramate or gabapentin.	Strong (topiramate)	Moderate (topiramate)
		Conditional (gabapentin)	Low (gabapentin)
12	Adult and youth patients should not be prescribed antipsychotics or SSRI antidepressants for the treatment of AUD.	Strong	Moderate
13	Prescribing SSRI antidepressants is not recommended for adult and youth patients with AUD and a concurrent anxiety or depressive disorder.	Strong	Moderate
14	Benzodiazepines should not be prescribed as ongoing treatment for AUD.	Strong	High
Community-based supports			
15	Adult and youth patients with mild to severe AUD should be offered information about and referrals to peer-support groups and other recovery-oriented services in the community.	Strong	Moderate

Naltrexone VS Acamprosate

	Naltrexone	Acamprosate
Contraindications	• Current opioid use disorder • Acute opioid withdrawal • Acute hepatitis or liver failure	• Severe renal impairment • Breastfeeding
Cautions	• Renal impairment • Hepatic impairment • Use of other hepatotoxic drugs • Pregnancy & breastfeeding • Pediatric patients <18 years	• Moderate renal impairment (CC of 30-50mL/min) • Pregnancy • Pediatric and geriatric patients
Side effects	Nausea, headache and dizziness are most common and generally mild and subside over time. They can be avoided if started at a lower dose or if the pt is abstinent from alcohol.	Diarrhea is most common reported side effect, vomiting and abdominal pain reported less frequently. Side effects usually transient and resolve quickly.
Dosing	**Stable daily dose: 50 mg OD** **Start on 25mg OD x 4 days** **Titrate to effect up to 150mg every 1-2 weeks**	**Stable daily dose 666mg TID.** **Prescribe lower dose if moderate renal impairment (i.e. 333mg TID)**

Naltrexone & acamprosate are safe and effective tx for AUD, yet a recent Canadian study found that these medications were prescribed to **fewer than 1% of all patients diagnosed** with AUD (UBC CPD, 2022).

Second-line pharmacotherapy options for AUD

	Gabapentin	Topiramate	Disulfiram
Considerations	• Caution re: diversion • More effective if patients are abstinent for >+ 3days	• Contraindication: pregnancy or becoming pregnant • Safe to start while using alcohol	• Due to weak evidence of efficacy and the severity of the alcohol-disulfiram reaction, should only be considered in specific circumstances and/or with highly motivated patients.
Dosing	Start at 300 mg on daily 1, increase by 300 mg daily as tolerated. Target daily dose 1800mg daily, administered in 3 divided doses (600mg TID)	Start at 50 mg/day; over a period of several weeks (~5-8 weeks), gradually titrate up to a maximum daily dose of 200mg, administered in 2 divided doses (100 mg BID).	250 mg per day, administered as single daily dose (range 125-500 mg daily).

Putting it all together

Alcohol use disorder and high-risk drinking

Clinical Practice Guideline

of Canadians aged 15 years and older drink above low-risk levels

- Alcohol use disorder (AUD): Pattern of heavy alcohol use and loss of control over intake despite negative consequences
- High-risk drinking and AUD frequently go unrecognized and untreated. Effective treatments are available
- Primary care providers are key to early detection and treatment

Overview of clinical pathway

ASK ABOUT ALCOHOL

"Would it be all right for us to talk about your relationship with alcohol?"

- Asking permission builds trust and comfort

SCREENING AND DIAGNOSIS

"In the past year, how often have you had more than 4 drinks (females) or 5 drinks (males) on any 1 occasion?"

- If 1 occasion or more, ask further screening questions (AUDIT-C*)
- For moderate risk of AUD: Provide brief advice on the health risks and suggestions on how to cut back
- For high risk of AUD: Diagnose using DSM-5-TR criteria

ASSESS THEIR GOALS

If moderate or severe AUD, use brief intervention to discuss goals and a tailored plan:

- Stop drinking
- Cut back on drinking
- Reduce harms of drinking

WITHDRAWAL MANAGEMENT

Use PAWSS* and withdrawal history to determine if low or high risk of severe complications (e.g., delirium tremens, seizures):

- Low risk: outpatient; Rx gabapentin, clonidine
- High risk: inpatient; Rx short course of benzodiazepines

LONG-TERM TREATMENT

- Medications: (1st line) Rx naltrexone or acamprosate; avoid SSRIs,* antipsychotics and long-term benzodiazepines
- Psychosocial treatments: Cognitive behavioural therapy, family-based therapy
- Community supports: Supportive recovery programs, peer groups, etc.

AUDIT-C = Alcohol Use Disorder Identification Test–Consumption
PAWSS = Prediction of Alcohol Withdrawal Severity Scale
SSRI = selective serotonin reuptake inhibitor

Summary & next steps

- Screen all youth & adults routinely that are above low risk
- Offer brief intervention to high risk and above, psychosocial supports to high risk and above, and pharmacotherapy to moderate-severe alcohol use disorder.
- Naltrexone and acamprosate for first line therapy
- Gabapentin & topiramate for second line therapy
- Don’t forget thiamine & folic acid
- Benzos as standard of care for withdrawal

Stay tuned for our next SIM coming up in early 2024 – Alcohol management in community settings!

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