

**Thank you for joining!
The webinar will begin shortly.**





A CURRENT OVERVIEW OF ALCOHOL USE DISORDER

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Who am I?

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Disclosures

- **Relationships with commercial interests:**
 - **Grants/Research Support:** None
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 - **Consulting Fees:** None
- **Potential Conflict(s) of Interest**
 - This program has not received financial support from any pharmaceutical organization.

Learning Objectives

- Definition of Alcohol Use Disorder.
- Epidemiology of Alcohol Use Disorder.
- Impact of COVID-19 on Alcohol Use Disorder.
- Evidence-based overview of pharmacologic and non-pharmacologic treatments.
- Local treatment programs.

Which one of these is hypothesized to be the oldest alcoholic drink in the world?

- A A Neolithic drink composed of fermented rice, grapes, honey, and hawthorn berries found in China.

- B Beer made from Barley in the Middle East primarily used to store food for the winter.

- C Wine excavated at a site between the Euphrates and Tigris rivers.

- D Medication utilized in ancient Sumeria.

Canada's Low-Risk Alcohol Drinking Guidelines

Know your
maximum limits



2 drinks
/day
10 drinks
/week
for women

3 drinks
/day
15 drinks
/week
for men



Beer
341 ml
(12 oz.)
5%
alcohol
content



**Cider/
Cooler**
341 ml
(12 oz.)
5%
alcohol
content



Wine
142 ml (5 oz.)
12% alcohol
content



**Distilled
Alcohol**
(rye, gin, rum, etc.)
43 ml (1.5 oz.)
40% alcohol
content



Alcohol Use Disorder Defined

A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12 month period:

- Alcohol is often taken in larger amounts or over a longer period of time than intended.
- There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.
- A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
- Craving, or a strong desire or urge to use alcohol.
- Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home.
- Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.
- Important social, occupational, or recreational activities are given up or reduced because of alcohol use.
- Recurrent alcohol use in situations where it is physically dangerous.
- Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
- Tolerance.
- Withdrawal.

Severity:

- Mild: 2-3 symptoms.
- Moderate: 4-5 symptoms.
- Severe: 6 or more symptoms.

Specifiers: In early remission (3-12 months), In sustained remission (12 months or more), In a controlled environment

Differentiate from nonpathological use of alcohol. AUD is the use of heavy doses of alcohol with resulting repeated and significant distress or impaired functioning. Less than 20% of drinkers who drink to intoxication ever develop alcohol use disorder. Therefore drinking, even daily, in low doses and occasional intoxication do not qualify.

Epidemiology of Alcohol Use Disorder

- Alcohol use is a major risk factor for mortality and morbidity, playing a role in more than 200 diseases and injury outcomes.
- In men, the relative risk (RR) of increased all cause mortality rates among clinical samples was 3.38 in men, in women it was 4.5.
- Alcohol Use Disorder is estimated to be 2-3 x greater among adult men than among adult women; with an ongoing narrowing of the gender gap.
- In Canada, the point prevalence of Alcohol Dependence was 8.0%, 6.6%, and 2.7% for early emerging adults, late emerging adults, and young adults, respectively. It was 3% overall in Canada.

American Psychiatric Association. (2013). Alcohol Use Disorder. Diagnostic and statistical manual of mental disorders (5th ed.).
Rehm. et. al. Global Burden of Alcohol Use Disorders and Alcohol Liver Disease. Biomedicine. 2019. Dec; 7(4): 99
Roerecke. M. and Rehm J. Alcohol Use Disorders and Mortality: A systematic review and meta-analysis. 2013. Addiction 108 (9).
Qadeer et. al. An Epidemiological Study of SUDs among Emerging and Young Adults. CJP. 2018. 64(5). 313-322

Epidemiology of Concurrent Disorders



- In 2012 1.2% of Canadians had experienced both a mood/anxiety disorder and substance use disorder in the previous year.
- Similar to the 1.7% prevalence in 2002.
- Patients with concurrent disorders have higher health service use, more frequent hospitalizations, medication non-compliance, and suicides.
- 30 per cent of people diagnosed with a mental health disorder will also have a substance use disorder at some time in their lives. This is close to twice the rate found in people who do not have a lifetime history of a mental health disorder.
- 53 per cent of people diagnosed with a substance use disorder (other than alcohol) will also have a mental health disorder at some point in their lives. This is close to four times the rate found in people who do not have a lifetime history of a substance use disorder

Statistics Canada, Catalogue no. 82-003-X • Health Reports, Vol. 28, no. 8, pp. 3-8, August 2017

Ksir and Hart. Cannabis and Psychosis: a Critical Overview of the Relationship. Substance Use and Related Disorders. 2016. 18: 12

Hakobyan et. Al. Concurrent Disorder Management Guidelines. Systematic Review. Journal of Clinical Medicine. 2020. 9. 2406



Genetics of Alcohol Use Disorder

- 40-60% of the variance of risk explained by genetic influences.
- Three to four times risk if a close relative has AUD, which was also replicated in adoption studies.
- Potentially related to over-predominant alcohol dehydrogenase enzyme.

COVID-19 and Alcohol Use Disorder

- Liquor retailers, including both private and government-run retailers, have been designated as essential services in all jurisdictions, operating under an evolving set of rules.
- Alcohol sales generate billions of dollars in revenue each year for both the private and public sectors in Canada. Health experts and substance use disorder specialists generally agree that liquor retailers should remain open during the pandemic to support individuals living with alcohol dependence and acute alcohol withdrawal.

Da. BL et. al. COVID-19 hangover: a rising tide of alcohol use disorder and alcohol-associated liver disease. *Hepatology*. 2020.

Hobin E. and Smith B. Is another public health crisis brewing beneath the COVID 19 pandemic? *CJPH*. 2020. 111. 392-396

Rehm et. Al. Alcohol use in tiems of the COVID 19: Implications for monitoring and policy. *Drug and Alcohol Review*. 2020. 39(4)

Statistics Canada. (2020) Canadians who report lower perceived mental health during the COVID-19 pandemic more likely to report increased use of cannabis, alcohol, and tobacco.

Wardell et. Al. Drinking to Cope during COVID 19 pandemic. *Alcoholism: Clinical and Experimental Research*. 44(10)

COVID-19 and Alcohol Use Disorder

- Evidence consistently shows a positive relationship between exposure to mass traumatic events, such as a terrorist attack or natural disaster, and increased population-level alcohol consumption following the crises in the shorter term, and up to 1 to 2 years post-event for those with higher exposure levels.
- A national survey found 14% of Canadians aged 15 + reported increases in their weekly alcohol consumption during the first phase of the COVID-19 pandemic.
- Income loss, mental health, living alone, uncertainty about the future, and having children under 18 were associated with increased use. Initially it was assumed it would be reduced due to reduced disposable income and closing of on-premise consumption sites.
- Patients with AUD are at risk of developing severe COVID 19 infection due to a weakened immune system and underlying comorbid medical conditions, especially in men with AUD with higher ICU and mortality rates.

Calgary Zone Primary Care Pulse Check

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Methanol, ethanol, and bleach are poisons. Drinking them can lead to disability and death. Methanol, ethanol and bleach are sometimes used in cleaning products to kill the virus on surfaces – however you should never drink them. They will not kill the virus in your body and they will harm your internal organs.

To protect yourself against COVID-19, disinfect objects and surfaces, especially the ones you touch regularly. You can use diluted bleach or alcohol for that. Make sure you clean your hands frequently and thoroughly and avoid touching your eyes, mouth and nose.



World Health
Organization

#COVID19

#coronavirus



FACT:
**Drinking methanol,
ethanol or bleach
DOES NOT prevent
or cure COVID-19
and can be
extremely
dangerous**

5 April 2020

Public Health Measures

- Although there may be similar interaction effects between socioeconomic status and heavy drinking in Canada and the US, there is a lower prevalence of heavy drinking among individuals with lower socioeconomic status in Canada and hence lower levels of alcohol-attributable mortality.
- This may be because alcohol is less affordable in Canada and there is less marked poverty and income inequality in Canada than the US.
- Given this evidence, Canada should make an effort to maintain high taxation and restricted availability of alcohol in line with World Health Organization recommendations, in order to avoid following the US into a state of declining life expectancy.

Psychotherapy Options

- 12 step programs- ensure it is a medically friendly group
- Cognitive behavioral therapy
- Motivational interviewing
- Couples and Family therapy
- Dialectical Behavioral Therapy
- Interpersonal therapy

Pharmacotherapy Options

Approved



- Naltrexone
- Acamprosate
- Disulfiram

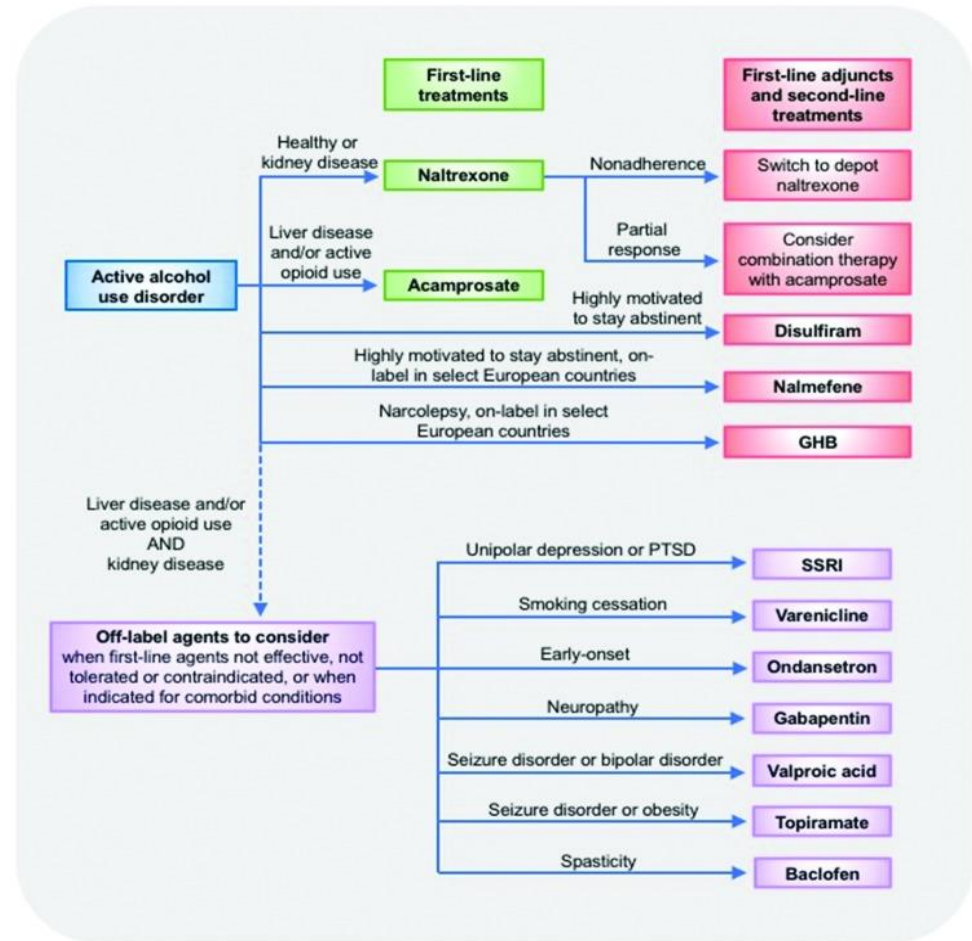
Off-Label



- Gabapentin
- Topiramate
- Ondansetron
- SSRI
- Varenicline
- Baclofen

Medication	Dosage	Side effects	Clinical tips
Naltrexone	Start at 25 mg per day, 50 mg per day is the standard dose.	N/V, vivid dreams, hepatocellular injury, mood disorder.	Must be opioid free for 7-10 days prior to initiation. Monitor liver function, must be less than 3 x normal. Covered by Alberta Blue Cross.
Disulfiram	250 mg daily to start, may increase to 500 mg daily	Interaction with alcohol (including perfumes, cough syrups etc), metallic taste, dermatitis, sedation, headache, hepatotoxicity, hypotension.	Monitor liver function, must be less than 5 x normal. Patients must be educated about the effects if they drink, including potentially lethal hypotension, and that reactions may occur up to 2 weeks after discontinuing the medication. Contraindicated in patients who are intoxicated with alcohol, taking metronidazole, amprenavir, ritonavir, or liquid sertraline, have psychosis or cardiovascular disease. Better for those living with a supportive partner or highly motivated patients.
Acamprosate	333 mg tablets 2 tablets three times per day if weight >130 lbs, two times per day if <130 lbs	Diarrhea, N/V, mood disorder, flatulence, anxiety.	Renal clearance so safer in patients with hepatic impairment. Need to monitor renal clearance. Better for maintenance of sobriety. Special authorization.

Pharmacology Flow Chart for the Treatment of Alcohol Use Disorder



Detoxification

- Symptom focused treatment results in a decreased cumulative dose of BZDs and decreased duration of treatment compared with fixed-dose regimens.
- Diazepam and Chlordiazepoxide are generally recommended as they are longer acting. Can consider Lorazepam if liver is failing.
- Alternative medications that have been studied for the treatment of acute alcohol withdrawal include valproic acid, carbamazepine, gabapentin, clonidine, antipsychotics, and ketamine.
- Can consider home detoxification if patient is medically stable, has appropriate housing, and does not have a history of alcohol withdrawal seizures or Delirium Tremens.

Inpatient Residential Treatment Centres

- Residential Treatment facilities provide time-limited treatment in structured, substance-free, live-in environments. Individuals accessing these services are most likely to be those with more complex and/or chronic substance use for whom community-based treatment services have not been effective.

“DON'T GIVE UP IN TIMES
OF DIFFICULTY. PERSEVERE
ON AS THERE WILL BE AN
END TO THESE.”
- EDWARD DUNEDIN

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