Primary care management of alcohol use disorder and at-risk drinking

Part 2: counsel, prescribe, connect

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Abstract

Objective To provide primary care physicians with evidence-based information and advice on the management of at-risk drinking and alcohol use disorder (AUD).

Sources of information We conducted a nonsystematic literature review using search terms that included *primary care; screening, interventions, management,* and *treatment;* and *at-risk drinking, alcohol use disorders, alcohol dependence,* and *alcohol abuse;* as well as specific medical and counseling interventions of relevance to primary care.

Main message For their patients with at-risk drinking and AUD, physicians should *counsel* and, when indicated (ie, in patients with moderate or severe AUD), *prescribe* and *connect*. Counsel: Offer all patients with at-risk drinking a brief counseling session and follow-up. Offer all patients with AUD counseling sessions and ongoing (frequent and regular) follow-up. Prescribe: Offer medications (disulfiram, naltrexone, acamprosate) to all patients with moderate or severe AUD. Connect: Encourage patients with AUD to attend counseling, day or residential treatment programs, and support groups. If indicated, refer patients to an addiction medicine physician, concurrent mental health and addiction services, or specialized trauma therapy.

Conclusion Family physicians can effectively manage patients with at-risk drinking and AUD.

EDITOR'S KEY POINTS

- Alcohol use disorder and at-risk drinking are common in Canada. Primary care management is at least as effective as specialized treatment in reducing heavy drinking.

- Primary care management should include 3 components: counsel, prescribe, and connect. The strength of the therapeutic relationship is an important determinant of success in counseling, and the established patient-physician relationship in primary care is helpful in treating alcohol use disorder and at-risk drinking. There is no delay in accessing treatment and there are high rates of engagement with primary care treatment compared with specialized care.

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An *at-risk drinker* is someone who consumes more than the amounts recommended in the Canadian low-risk drinking guidelines (LRDGs)[1] but who does not meet clinical criteria for alcohol use disorder (AUD). Alcohol use disorder is a psychiatric illness defined as alcohol use causing clinically significant impairment or distress, characterized by impaired control over drinking and ongoing drinking despite harmful consequences. The *Diagnostic and Statistical Manual of Mental Disorders,* 5th edition (DSM-V), classifies AUD as mild, moderate, or severe. Physicians might be more familiar with the diagnostic categories from the previous DSM edition: *alcohol abuse* and *alcohol dependence*. Alcohol abuse corresponds to milder AUD and alcohol dependence to more severe AUD.

Alcohol misuse is common in Canadian society; approximately 14% of those aged 15 and older exceed the LRDGs for chronic risk and 10% exceed the guideline for acute risk.[2] As well, about 2.6% of the population meets the criteria for alcohol dependence (equivalent to more severe AUD).[3] Alcohol misuse is a leading preventable cause of death and disability in Canada.[4] The costs to Canadian society are also substantial: one study estimated the total costs of alcohol misuse in 2002 to be $14.6 billion, with $3.3 billion in direct health costs.[5]

Part 1 (**page 509**) of this 2-part series outlined an approach to screening and assessment of alcohol problems in primary care.[6] This article describes a primary care management approach.

Case: recap

H.M. is a 43-year-old woman you diagnosed 2 weeks ago with moderate AUD. She drinks most days of the week and has about 3 drinks per sitting. However, on weekends she often drinks 5 or more drinks a night. She usually drinks beer but occasionally hard liquor.

She does not start drinking until the evening and denies ever drinking and driving. She had several blackouts in the past year from heavy drinking; on 1 occasion she fell and injured her wrist. She is married but does not have children. She has frequent arguments with her partner over her drinking. She denies serious withdrawal symptoms and has gone days without drinking. However, she does notice that she sleeps poorly and feels more anxious when she does not drink. She has tried to cut back many times but has not been successful.

Her physical examination findings at the last appointment were normal. She does not have signs of liver dysfunction. Her laboratory test results were normal except for an elevated γ-glutamyl transpeptidase level.

You did a complete assessment at a visit last week and have booked her to come back today for a 30-minute appointment.

Sources of information

We conducted a nonsystematic literature review using search terms that included *primary care; screening, interventions, management,* and *treatment;* and *at-risk drinking, alcohol use disorders, alcohol dependence,* and *alcohol abuse;* as well as specific medical and counseling interventions of relevance to primary care.

Main message

Primary care interventions for at-risk drinking and AUD are effective. Randomized controlled trials and systematic reviews have demonstrated that brief advice in primary care settings reduces alcohol consumption among at-risk drinkers and those with mild alcohol-related problems.[7] Evidence is strongest for middle-aged men, and weaker for women and youth.[8,9]

Brief interventions do not reduce heavy drinking in patients with more severe AUD.[10] However, several randomized controlled trials in the past decade have found that primary care management with ongoing counseling and pharmacotherapy is effective (as effective[11-14] as specialized addiction management) in reducing heavy drinking in these patients.

There are several reasons why primary care management is effective for more severe AUD. There are high rates of engagement with primary care treatment compared with specialized care.[13] Patients generally trust and confide in their family doctors.[15] There is little to no delay to initiating an intervention. Immediate treatment access and long-term follow-up have a greater effect on drinking outcomes than the intensity of treatment.[16] Unlike many specialized addiction treatment programs, family physicians can prescribe AUD medications (disulfiram, naltrexone, and acamprosate). Finally, patients who are lost to follow-up connect with primary care for another reason and re-engage with addiction treatment.

Based on studies done in primary care,[11-13] primary care management should consist of 3 components: counsel and, and when indicated (ie, in patients with moderate and severe AUD), prescribe and connect.

Counsel. Offer all patients with at-risk drinking a brief counseling session and follow-up. Physicians should review the LRDG with their patients and express concern about the amount or frequency of their patients' alcohol consumption. They should link it to possible short- and long-term consequences and then determine the patients' goals and readiness to change. Practical advice from physicians on reducing alcohol consumption helps patients achieve their goals (**Box 1**). The patient LRDG handout from the Canadian Centre on Substance Abuse summarizes this information.[17] Patients should be offered a follow-up appointment to review their alcohol use. An important determinant of success in counseling is the strength of the relationship between the patient and the therapist.[15] Strong relationships are characterized by trust, compassion, empathic listening, and encouragement of self-efficacy.

Offer all patients with AUD counseling sessions and ongoing (frequent and regular) follow-up. The counseling

Box 1. Tips to reduce alcohol intake for at-risk drinkers or patients with mild AUD

Suggest the following strategies to reduce alcohol intake:

- Set a goal for reduced drinking. The goal should specify the amount on each drinking day and the circumstances (eg, have no more than 3 drinks on Thursday, Friday, and Saturday, and no drinking alone). The goal should include nondrinking days
- Record drinks in a calendar, logbook, or smartphone application
- Arrive and leave drinking events at predetermined times (eg, only stay 3 hours at a pub or party)
- Eat before and while drinking
- Start drinking later in the evening or night
- Switch to a less preferred alcoholic drink
- Pace your drinking (eg, no more than 1 drink per hour)
- Sip drinks slowly
- Alternate alcoholic drinks with nonalcoholic drinks
- Have a 20-minute time-out between the decision to drink and actually having the drink

AUD—alcohol use disorder.

approach for patients with AUD is similar to patients with at-risk drinking. Physicians should express concerns about patients' drinking and link it to consequences in patients' lives.

Explore the patient's goals. For those with milder AUD and few life consequences, reduced drinking is a reasonable goal. Pregnant women and those with health conditions that are worsened by alcohol use (eg, liver dysfunction, mood disorders, seizure disorders) should be encouraged to target abstinence. As well, patients with severe AUD typically find reduced drinking difficult to achieve. However, in all cases, to maintain engagement the physician should continue to support the patient if his or her goal is reduced drinking, while providing encouragement and practical advice that might help the patient obtain and sustain abstinence (**Box 2**). Physicians might want to negotiate with patients to have a short trial (1 to 2 months) of reduced drinking, and if that is not successful, target abstinence instead.

Determine if the patient is ready to make a change. For those who do not want to make a change, physicians should express concern but remain supportive. If the patient is considering a change but remains ambivalent, an exploration of the pros and cons of drinking can be helpful.

Once patients are ready to make a change, they need practical advice and solution-focused counseling for reduced drinking or abstinence (**Boxes 1** and **2**). Physicians should explore the barriers and conduits to change. The physician should work with the patient on plans to avoid triggers and encourage the patient to develop a supportive social network and healthy lifestyle. The physician should provide methods to cope with cravings (**Box 3**).[18] Behavioural interventions incorporating these techniques have positive outcomes.[11] The physician should encourage frequent visits (weekly or every 2 weeks initially) and provide ongoing support.

Relapse is common in recovery; patients often go through many cycles of relapse and remission before achieving long-term remission. Patients typically feel shame and guilt about relapse, so physicians should address and normalize this possibility early on. Physicians and patients should work together to identify what led to the relapse and come up with a plan to minimize further relapses.

Prescribe. Family physicians should prescribe medications early in treatment. They should be familiar with the 3 Health Canada–approved medications used to treat AUD: disulfiram, naltrexone, and acamprosate (**Table 1**).[19,20] They should also be aware of the indications for the use of selective serotonin reuptake inhibitors. Typically these medications are prescribed for 6 months but they can be prescribed for longer. These medications are effective[14] with a number needed to treat of 12 for both acamprosate and for naltrexone.[19] Naltrexone and acamprosate also reduce health care utilization and costs.[21,22] Disulfiram is effective when taken under supervision.[20]

Most private drug plans provide coverage for these medications. Quebec and the Yukon have naltrexone on the general formulary. Several provinces, such as Ontario, provide access to naltrexone and acamprosate through a special request process. Some provinces, such as Alberta, have no coverage. For patients who do not have drug plans, naltrexone and acamprosate are expensive. Disulfiram is no longer produced in Canada; however, it is inexpensive and patients can purchase it at compounding pharmacies or online.

Several other medications have shown promise in controlled trials, such as topiramate, ondansetron, and baclofen. However, use of these medications for AUD is off label; they should only be used if a patient has not responded to other medications. It is unclear if combining medications improves outcomes.[23]

Box 2. Tips to maintain abstinence or reduced drinking in the first few months for patients with moderate to severe AUD

Suggest the following strategies to maintain abstinence or reduced drinking:

- Make recovery your top priority in first few months
- Avoid "triggers" (eg, pubs, drinking buddies)
- Avoid stresses (eg, overwork, interpersonal conflict)
- Find methods to reduce stress such as exercise or meditation
- Eat and sleep at regular hours
- Spend time with supportive family and friends
- Have daily contact with a close friend, family member, or AA sponsor for support
- Use AA or other support groups, if available
- Have a contingency plan to interrupt a slip or relapse
- In the case of a relapse immediately contact your physician, counselor, or sponsor

AA—Alcoholics Anonymous, AUD—alcohol use disorder.

Box 3. Coping with cravings and urges

Recommend the following techniques to help patients cope with cravings or urges:

- Delay technique: "I will not act on this craving right away. I will wait 5 (or 10 or 15) minutes to decide whether to act on this craving"
- Distract technique: Prepare a list of distractions ahead of time (eg, call a friend or sponsor, go for a walk or run, do some housecleaning). Select from the list of distractions when having a craving
- Urge surfing technique: Picture the urge as an ocean wave and imagine yourself surfing, using your breath as the surfboard. Ride this wave through its peak and its decline, without being submerged or wiped out by its enormity[18]

Naltrexone: Naltrexone is the first-line agent. It blocks the opioid receptor and diminishes the euphoric effects associated with alcohol. Studies have found it reduces the number of heavy drinking days and the amount consumed in single drinking episodes.[24] It also helps patients maintain abstinence.[19] It can be prescribed while patients are still drinking. Naltrexone is contraindicated in patients who use opioids because, as an opioid antagonist, it can precipitate acute, severe withdrawal. Naltrexone has been associated with reversible elevations in liver transaminases at excessive doses (doses well above 50 mg/d). For this reason, it is contraindicated in patients with liver failure (ascites, encephalopathy, portal hypertension, etc) and should be used with caution in patients with any type of liver dysfunction or disease. Physicians should check liver transaminase levels before initiation and should not prescribe naltrexone if levels are greater than 3 times the upper limit of normal. They should also monitor levels regularly during therapy and discontinue naltrexone if transaminase levels rise to 3 times greater than baseline. To keep this in perspective, controlled trials have demonstrated that patients taking naltrexone have lower liver transaminases than patients taking placebo,[25] suggesting that naltrexone is safer for the liver than alcohol is. Patients must be instructed to tell other health care providers that they are taking naltrexone if they need opioids for acute pain; they will initially require higher doses of opioid pain relievers until the naltrexone wears off. To minimize gastrointestinal upset, the initial dose is 25 mg of naltrexone daily for 3 days, then 50 mg daily. The patient should experience reduced drinking and reduced cravings within a few days. If 50 mg has minimal effects on cravings, the dose can be increased to 100 mg or 150 mg (**Table 1**).[19,20]

Disulfiram: Disulfiram blocks the conversion of acetaldehyde to acetic acid. The buildup of acetaldehyde causes flushing, tachycardia, sweating, and gastrointestinal upset. Studies have found disulfiram to be effective when it is dispensed under supervision.[20] The best candidates for this medication are highly motivated patients who have a partner, pharmacist, or Alcoholics Anonymous sponsor who is willing to supervise their use of the medication. Side effects include hepatitis, psychosis, neuropathy, and depression. Disulfiram is contraindicated in patients with liver dysfunction, cardiac disease, psychosis, or cognitive dysfunction, and in patients who are pregnant or trying to get pregnant. Patients must be abstinent before initiation for several days and cannot drink while taking the medication (**Table 1**).[19,20]

Acamprosate: Acamprosate antagonizes glutamate, an excitatory neurotransmitter affected by alcohol. It increases the time to relapse but does not reduce heavy drinking.[19,26] Acamprosate is only effective for patients who have been abstinent for at least several days, so physicians should wait until a patient is abstinent for at least 4 days before starting the medication. However, if patients do relapse and drink, it does not cause a reaction. Contraindications include severe renal dysfunction. The dosage is 666 mg 3 times daily. Moderate renal dysfunction and low body weight require a dose adjustment (**Table 1**).[19,20]

Selective serotonin reuptake inhibitors: Selective serotonin reuptake inhibitors should be prescribed for patients with a primary (underlying) mood or anxiety disorder. A primary disorder should be suspected if the mood or anxiety predates the AUD and persists during periods of abstinence.

Connect. Additional addiction and mental health services can improve outcomes for patients with AUD. However, patients with addictions have high no-show rates (often 50% or more) for services outside of their primary care clinics.[27] The reasons are multifactorial, but include ambivalence around treatment, lack of a therapeutic alliance with the provider, concurrent mental health problems, and costs associated with the visit (transportation, child care, etc).[28,29] Therefore, physicians need to be persistent and continually encourage patients to follow up with appointments and seek out other services.

Counselors: Counselors can play a key role in addiction recovery. Counselors should have specific addiction-counseling training such as relapse-prevention therapy, behavioural counseling, motivational therapy, and cognitive-behavioural therapy for addictions.[30]

Support groups: Mutual support groups, like Alcoholics Anonymous and the Secular Organizations for Sobriety, might reduce risk of relapse for patients who attend regularly and engage in treatment.[31] Patients should try several support groups before selecting one to find a good fit. Support groups have several advantages over formal treatment programs. In larger cities, meetings are held daily at multiple locations. Patients do not have to endure waiting lists or assessments. Members provide informal social support, which can be crucial for patients who have nonsupportive or negative social networks.

Day and residential treatment programs: These programs typically provide structured relapse prevention therapy in a group setting. Most residential programs last a few weeks, with ongoing follow-up ("after care") of up to 2 years. Dropout rates for residential and day treatment programs are high,[32] but for patients who complete a program, a third are abstinent at 1 year, and most of the remaining two-thirds show reductions in alcohol use.[33]

Concurrent treatment: There is strong evidence that patients with concurrent mental health disorders (anxiety,

Table 1. Medications for AUD

MEDICATION	ACTION	EFFECTIVENESS	DOSAGE	CONTRAINDICATIONS AND SIDE EFFECTS
Naltrexone	Blocks opioid receptor and reduces euphoric effects of drinking	NNT = 12 to prevent heavy drinking and NNT = 20 for abstinence[19]	25 mg for 3 d (to reduce GI effects) then increase to 50 mg/d to a maximum of 100 mg/d Patients do not need to abstain before starting	Contraindications • Taking opioids • Elevated liver enzymes (>3 times normal range) • Liver failure (caution with dysfunction or disease) • Pregnancy Side effects • GI upset • Elevated liver enzymes Monitoring • Measure liver enzymes at baseline, 4 wk, then every 3 mo • Discontinue naltrexone if levels rise >3 times baseline
Acamprosate	Antagonizes glutamate receptors (excitatory neurotransmitter)	NNT = 12 to achieve abstinence[19]	666 mg 3 times daily or 333 mg 3 times daily if there is renal impairment or body weight is <60 kg Patients should abstain for at least 4 d before initiation	Contraindications • Serious renal disease • Pregnancy Side effects • GI upset • Nervousness
Disulfiram	Blocks conversion of acetaldehyde to acetic acid and causes a buildup of acetaldehyde. Patients experience sweating, palpitations, and hypotension. Effects can be severe and, in very rare cases, fatal	Has positive outcomes when taken with supervision[20] (by partner, pharmacist, or AA sponsor) Compares favourably to naltrexone and acamprosate in head-to-head trials	250 mg/d (range 125 mg to 500 mg) Must be abstinent at least 2 d before initiation Disulfiram reaction can occur up to 10 d after stopping medication	Contraindications • Elderly • Cardiac disease • Liver dysfunction, disease, or failure • Psychosis • Cognitive dysfunction • Pregnancy Side effects • Hepatitis • Neuropathy • Depression • Psychosis Monitoring • Measure liver enzymes at baseline, 2 wk, and then every 3 mo • Discontinue if levels rise >3 times normal range

AA—Alcoholics Anonymous, AUD—alcohol use disorder, GI—gastrointestinal, NNT—number needed to treat.

depression, personality disorders, bipolar disorder, and other mental health problems) do best when they receive concurrent and integrated treatment (ie, treatment of both conditions at the same time with the same providers).[34] If these services are not available, primary care physicians can refer such patients to mental health services for assistance in providing concurrent (nonintegrated) treatment. Some patients might not need a referral; family physicians might feel comfortable providing concurrent treatment for noncomplex patients with mood disorders.

Trauma services: Patients with posttraumatic stress disorder benefit from concurrent services. They do best with validated trauma-specific integrated and concurrent services such as Seeking Safety.[35]

Addiction medicine: Primary care physicians should consult an addiction medicine physician for more complex patients or if patients are not improving with primary care management.

Case: follow-up visit for counseling

H.M. misses her first counseling appointment with you but shows up for a rescheduled visit. She has not yet made any changes to her drinking. Together you review her goal. She would like to reduce her

drinking to within the LRDG and is ready to make this change. She puts her motivation at 9 out of 10 and her confidence at 6 out of 10.

You support her decision but express concern: it is difficult for individuals with moderate or severe AUD to achieve low-risk drinking. Abstinence might be a better goal for her. H.M. does not feel this is a reasonable goal for her and you both agree to a trial of lower-risk drinking.

Together you explore her barriers to reducing alcohol intake and her triggers for relapse. You discuss her insomnia and sleep hygiene. You review her supports and encourage her to attend counseling (she has coverage through her workplace) and support groups. You discuss tips to reduce drinking including starting later in the day, taking a time out between drinks, having no-drinking days in the week, and recording drinks in a logbook. She declines a referral to see an addiction medicine physician.

You also discuss medications and encourage her to try naltrexone. It might help her to reduce heavy drinking days. She agrees and you give her a prescription. You record the diagnosis as moderate AUD.

You continue to see her monthly over the next year. Although it takes several months, she is able to reduce her drinking to within the LRDG and rarely has more than 2 drinks per occasion. Her γ-glutamyl transpeptidase level normalizes. She continues to take naltrexone. She reports that overall her anxiety level is lower and she sleeps much better. She attends counseling regularly as well. She discloses to you that she is getting trauma-specific group therapy for abuse she suffered in childhood. She feels the abuse contributed to her heavy drinking.

Conclusion

At-risk drinking and AUD are very common in Canadian society. Primary care interventions are at least as effective at reducing heavy drinking compared with specialized care. Primary care management should consist of 3 components. *Counsel* all at-risk drinkers and those with AUD (use goal setting, problem solving, and practical advice). *Prescribe* anti-alcohol medications to all patients with moderate or severe AUD. *Connect* those with AUD to other treatment such as counselors, support groups, concurrent mental health treatment, and addiction medicine treatment.

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Contributors

Both authors contributed to the literature search and interpretation, and to preparing the manuscript for submission.

Competing interests
Dr Kahan has received honoraria from Reckitt-Benckiser for continuing medical education events on Suboxone (buprenorphine-naloxone).

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