Expert Review By: Dr. David Reading, Internist and Addiction Medicine Physician
Written By: Dr Sarah Valentine

Some housekeeping before we start: The objectives of this CCFP topic use terms such as "user" and "abuser", both of which have significant negative connotations associated with them and can further stigmatize individuals who use substances and those who live with addiction. The more appropriate term, and that which is used in the DSM is "use disorder", eg. someone may have an alcohol use disorder or opioid use disorder, along with the other term "people who use substances" (PWUS).

Caring for patients with substance use disorders is an essential skill for primary care providers. While many people with SUDs present to emergency care, primary care remains the core of treatment of substance use disorders.

(Ramdawar, A., Bozinoff, N., & Lazare, K. (2024). "Not doing it justice": Perspectives of Recent Family Medicine Graduates on Mental Health and Addictions Training in Residency. Journal of Medical Education and Curricular Development, 11. https://doi.org/10.1177/23821205241238642)

With this in mind, lets get started with a case.

You are a family physician working in a small town. Michael is a 45 year old male who works full-time as a mechanic and is presenting to your primary care clinic for poor sleep. On chart review, you see he has a history of depression and recent work-safe claim for back-injury, sustained from heavy lifting while at work 2 months ago. He is an ex-smoker but you see no further documentation on substance use in the EMR.

Objective 1: In all patients, and especially in high-risk groups (e.g., mental illness, chronic disability), opportunistically screen for substance use and abuse (tobacco, alcohol, illicit drugs).

During your encounter with Michael, you assess potential causes of his reported sleep disturbances. This is a great opportunity to screen for substance use as we know consumption of substances like alcohol impacts sleep quality, and this patient is at a higher risk for substance use given concurrent depression with recent life stressors including current back injury related to a work-place injury.

Some simple acronyms to remember steps for assessment and management of substance use in primary care is SBIRT - Screening, Brief Intervention, and Referral to Treatment, as well as the 5 A's - Ask, Assess, Advise, Assist, Arrange - tune in to our Smoking Cessation Episode for a deeper dive on the 5 A's.

CRISM, the Canadian Research Initiative in Substance Matters, recommends beginning screening for alcohol use disorder with the SASQ (the Single Alcohol Screening Question). It is a validated screening tool, with research demonstrating that a positive test is 82% sensitive and 79% specific for "unhealthy alcohol use".

The question is: In the past year, how often have you consumed more than 3 drinks (for adult women) or 4 drinks (for adult men) on any one occasion? A positive test is any response greater than 0 or when the patient states they are having difficulty coming up with the correct number (because it is therefore greater than 0).

CRISM then recommends if there is a positive screen on this quick test to move onto a more in-depth questionnaire such as SBIRT or AUDIT-C. We'll include the questions involved in these screens in the shownotes.

EXTRA:

SBIRT is a comprehensive and evidence-based public health approach to early intervention for persons with or at risk of substance use disorder and research on this strategy for alcohol demonstrates it can be effective for both adults and adolescents in emergency and primary care settings. (https://www.publichealthontario.ca/-/media/documents/E/2017/eb-sbir.pdf?la=en).

Working through SBIRT, we can quickly assess the degree of substance use to help us identify the appropriate supports/interventions needed. Some commonly used and validated screening tools for alcohol use are AUDIT-C (conveniently available on MD-calc) and the Single Alcohol Screening Question.

AUDIT-C includes three questions:

1) *How often did you have a drink containing alcohol in the past year?*
2) *How many drinks did you have on a typical day when you were drinking in the past year?*
3) *how often did you have 6 or more drinks on one occasion in the past year?*

Responses for each question range from 0-4 points, and a total score of 4+ in men is positive for alcohol misuse and further evaluation/follow up should be arranged, while a score of 3+ for women is positive.

(Validation of Self-Administered Single-Item Screening Questions (SISQs) for Unhealthy Alcohol and Drug Use in Primary Care Patients. McNeely J, Cleland CM, Strauss SM, Palamar JJ, Rotrosen J, Saitz R. J Gen Intern Med. 2015 Dec;30(12):1757-64. Epub 2015 May 19.)

For other types of substances, the screening tool ASSIST may be employed (also found on MD calc), however the length of this questionnaire is a barrier to its use, especially in a fast-paced environment like the ED or primary care clinic.

While this objective only specifically asks about screening, we wanted to round out this discussion on screening by quickly touching a bit more on the SBIRT tool. So, we've already screened the patient with the SASQ or AUDIT-C questionnaires, which brings us to the brief intervention step.

Brief Intervention here focuses on increasing insight and awareness of the individuals substance use and their motivation toward behavioural change using motivational interviewing. See our resources section for a great reference document from CCFP with tips and scripts for engaging in MI in your practice.

The last step of the SBIRT process is Referral to Treatment, which is as it sounds, connecting those you identify to have moderate to severe substance use or those you think require higher levels of care than you can provide should be referred on to additional supports.

We recommend becoming familiar with addiction supports in your community, including outreach services, rapid access clinics, and on-call addiction medicine physicians. And as with anything you may come across in primary care, if you have any acute concerns, send the patient to the emergency department or your local detox for management.

If the patient screens positive, having them book a follow up appointment to perform a more complete substance use history will be extremely helpful in understanding patient context, assessing risk, and recommending treatment. We've included an example Addiction Medicine History template in the resources for this episode.

Alright, moving on! We'll be covering the objectives a bit out of order for the sake of flow of the case, so next up is objective #3.

Objective 3: In patients with signs and symptoms of withdrawal or acute intoxication, diagnose and manage it appropriately.

This objective could be an entire episode in and of itself as there are many different toxidromes, withdrawal syndromes, and management plans for each substance, which we are not able to cover in depth in this episode, but make sure to check out our resources section for further details on management of opioid and alcohol withdrawal and intoxication. For the purposes of this episode, we will turn to another clinical scenario to highlight some of the main learning points.

You are working your weekend shift in the local emergency department when Jennifer, a 35 year old female with no fixed address is brought in by EHS after being found down on the street by a concerned bystander. She is brought directly into the trauma bay.

While performing your assessment of Jennifer in the ED, you note she has a decreased level of consciousness, responding only briefly to painful stimuli. HR is 60 and regular. RR is low at 8. SpO2 96% on room air and airway is protected. Pupils are equal and reactive however they are constricted. Given the collected history and her clinical presentation, you suspect opioid overdose.

Per the BC Centre on Substance Use (BCCSU), management of opioid overdose is as follows:

1) Administration of Naloxone:
- The first dose given is generally 0.4mg IM as this is what is available in the widely available Narcan kits you might be familiar with
- If the cause of overdose is unclear, administration of naloxone in incremental doses is still recommended. Start with a lower dose to avoid unnecessary pronounced withdrawal such as 0.1—0.2mg IM/IV q2min PRN
- Titrate doses to improve spontaneous respiratory effort and minimize withdrawal symptoms

2) Monitoring:
- Vital signs: q15min for the first hour
    - In some facilities, patients may need to be transferred to another unit/ward for more frequent monitoring as this is obviously quite the nursing burden

3) Observation Period:
- Minimum 2 hours: Less than 0.8mg of naloxone administered and the opioid was smoked, snorted, or injected
- Minimum 6 hours: More than 0.8mg of naloxone was administered and oral ingestion of opioid
- Minimum 4–6 hours: High possibility of co-occurring substance use or concern of overdose secondary to long-acting opioids (e.g., methadone or SROM)

It is important to keep in mind that the opioid half-life may exceed the half-life of naloxone (approximately 1.5 hours) and overdose symptoms may resume once naloxone wears off.

Due to this, do not administer opioids (OAT or PRN) after naloxone has been administered until the patient is assessed for risk of overdose symptoms returning.

Following the above protocol, you have stabilized Jennifer and she is admitted to hospital for monitoring. Later in your shift you go by Jennifer's room to check in. She appears uncomfortable, has rhinorrhea, piloerection, and is yawning and minimally engaging in conversation. She reports to be feeling pain all over, nausea, and wants to leave the hospital. You diagnose her now with opioid withdrawal and recommend she stay in hospital so you may provide her with supportive care.

She agrees to stay for withdrawal management. She is more alert but still quite uncomfortable and tells you she feels like she is in withdrawal.

She also tells you that she typically smokes 1-2g of fentanyl per day. She denies other substance use at present, and is pre-contemplative towards decreasing her current fentanyl use.

Given her continued discomfort, you proceed with ordering short-acting opioid PRNs. Again, referencing BCCSU, you start her on hydromorphone 8-16 mg PO q2H with safety parameters to hold for RR<10 and order naloxone for reversal PRN. This is the dose recommended for those who can tolerate oral medications and have high opioid tolerance.

This is just an example protocol, but IV or SC opioids are available on most units as well if you are inadequately meeting your patients opioid needs with oral options.

This dosing range can be titrated to effect based on patient self-reported resolution of withdrawal symptoms. A scoring tool like the COWS score for opioid withdrawal can additionally be used to assess a patient's response.

Additional non-opioid medications may be used as adjuncts to manage opioid withdrawal, including acetaminophen and ibuprofen for pain, loperamide for diarrhea, clonidine for sweating/tremors/chills/anxiety, and dimenhydrinate or gravol for nausea/vomiting.

Objective 2: In intravenous drug users:

a. **Screen for blood-borne illnesses (e.g., human immunodeficiency virus infection, hepatitis).**
b. **Offer relevant vaccinations.**

It is worthwhile mentioning the recommendations in this objective are useful in all folks living at-risk, not just those with reported IV drug use.

Once Jennifer is stable and feeling more comfortable opening up to you, you are able to collect a more comprehensive history and she endorses using her fentanyl intravenously. While in hospital we can offer her a bloodborne illness/STI panel including HIV, HCV, HCB, GC/CT, and syphilis.

Additionally, once closer to discharge and if the patient is agreeable, this can be a good opportunity to provide supplies such as Naloxone kit, and offer relevant vaccinations such as pneumococcal, hep B, hep A. We recommend reviewing your provincial guidelines for recommended adult vaccinations based on your patient's health history and risk factors.

This could also be an entire episode or at the least an entire objective, but this would also be the appropriate time with this patient to discuss harm reduction strategies. We've linked resources in the shownotes, but briefly, we always recommend patients use around others (never alone!), use clean equipment and needles, and preferentially smoke over IV use.

There's also a great app in BC called the LifeGuard app which allows you to immediately alert emergency providers of a potential overdose and provides guidance on how to care for someone you suspect has overdosed until emergency providers arrive.

Objective 4: Discuss substance use or abuse with adolescents and their caregivers when warning signs are present (e.g., school failure, behaviour change).

Now, back in the clinic on Monday, you are seeing Sam, a 15 year old male presenting with his mother to your office after a discussion with his teacher about a drop in his academic performance and disengagement at school. He has been connected with the school counsellor and he was advised to see his family physician for further assessment.

We likely have all heard of the HEEADSSS assessment for screening adolescent patient health, which is a great tool for getting a full-scope understanding of young patients' lives and risk factors to address, and would be a great first step in our assessment of Sam.

This has been covered in previous Generehlist episodes but as a reminder, it involves asking about their Home life, Education, Eating, Activities, Drugs, Sexuality, Suicide, and Safety.

During your discussion with Sam, he hesitantly endorses use of a cannabis vape as well as alcohol. When asked about the frequency and amount of use, he replies "I don't know, I guess I vape sometimes, like after school, but I only drink at parties".

When screening school-aged youth for substance use, the Canadian Pediatric Society recommends use of CRAFFT+N, which is a validated screening tool for substance use and risk-related behaviours that can be self- or provider-administered.

The new +N tool includes an additional series of questions about nicotine use given the increased use of vaping and nicotine-containing products in youth.

The higher the CRAFFT score, the higher the probability of a DSM-5 substance use disorder, increasing from 32% for a score of 1 up to 100% with scores of 5 or 6.

(Mitchell SG, Kelly SM, Gryczynski J, Myers CP, O'Grady KE, Kirk AS, & Schwartz RP. (2014). The CRAFFT cut-points and DSM-5 criteria for alcohol and other drugs: a reevaluation and reexamination. Substance Abuse, 35(4), 376–80.)

Our patient Sam is agreeable to take the self-administered CRAFFT+N screening tool, so you step out and leave him with the form to complete.

When discussing substance use in adolescents, the CPS position statement on harm reduction and reducing risky health behaviours in adolescents recommends:
"Provide messages that encourage delay in initiation of potentially risky behaviours, and at the same time, promote risk-reduction strategies if adolescents choose to engage or are already engaging in the behaviour."
This is because studies have shown that people who go on to develop substance use disorders tend to initiate substance use earlier in life. This is why screening and early support is so important for this patient population.

(Kessler RC et al. 2005 / Adlaf, E. M., Begin, P., & Sawka, E. 2005)

Studies have shown that implementation of motivational interviewing techniques, focusing on what is important to the adolescent and addressing ambivalence and resistance to change can lead to reduction in alcohol-related problems including drinking and driving and alcohol-related injuries.

- *Baer JS, Kivlahan DR, Blume AW, McKnight P, Marlatt GA. Brief intervention for heavy-drinking college students: 4-year follow-up and natural history. Am J Public Health 2001;91:1310-6.*
- *Monti PM, Colby SM, Barnett NP, et al. Brief intervention for harm reduction with alcohol-positive older adolescents in a hospital emergency department. J Consult Clin Psychol 1999;67:989-94.*

- *Erickson SJ, Gerstle M, Feldstein SW. Brief interventions and motivational interviewing with children, adolescents, and their parents in pediatric health care settings: A review. Arch Pediatr Adolesc Med 2005;159:1173-80.*

The CPS statement we were referencing earlier has an example script for motivational interviewing techniques to use when discussing substance use with adolescents that we'll include in the shownotes.

TABLE 1
Examples of motivational interviewing techniques

Technique	Example
Open-ended questions	How does drinking on the weekends affect getting your homework done?
Reflective listening	It sounds like you are very upset about the recent break-up with your girlfriend. I wonder whether you are more likely to drink when you are upset?
Affirmations	Deciding not to go that party sounds like a good choice. It may be difficult to avoid drinking if you went.
Summary statements	It is important to be able to hang out with your friends. Are there other activities you do with that group?
Eliciting change talk	What are some of the things you would like to change?

CPS Position Statement "Harm reduction: An approach to reducing risky health behaviours in adolescents. Feb 28, 2018. https://cps.ca/en/documents/position/harm-reduction-risky-health-behaviours

Objective 5: Consider and look for substance use or abuse as a possible factor in problems not responding to appropriate intervention (e.g., alcohol abuse in patients with hypertriglyceridemia, inhalational drug abuse in asthmatic patients).

As we know, there are many medical and psychological impacts of substance use. This objective highlights ways to be cued into inquiring about substance use in patients presenting with certain complaints or not responding as expected to certain treatments.

Lets review a few common presentations related to substance, while acknowledging that this is of course not an exhaustive list. For someone using alcohol, you may see elevated liver enzymes. Specifically, an AST:ALT ratio of 2:1 is suggestive of alcohol-associated liver disease.

And as the objective mentions, patients with hypertriglyceridemia should also be asked about alcohol use. Additionally, peripheral neuropathy may also be related to alcohol.

Those with sleep disturbances should be screened for substance use including alcohol, which as we know negatively impacts sleep quality but may also contribute to OSA.

Someone with asthma or reactive airways should be asked about triggers including inhalational drug use such as nicotine or cannabis, as well as exposures like second-hand smoke.

Recurrent skin infections or concerns for septic joints should prompt you to screen for IVDU. Patients with hypertension should be asked about substance use including smoking, alcohol, and stimulants.

And, while much more extreme, if you see a patient presenting with ataxia or confusion, keep Wernicke's encephalopathy from alcohol use on your differential, and screen appropriately.

Objective 6: Offer support to patients and family members affected by substance abuse. (The abuser may not be your patient.)

For this objective we want to highlight the excellent resources available to families and caregivers from the BCCSU, including patient-centered information on substance use disorders and treatment options, discussions on stigma, stories from family and caregivers of folks who use substances.

There is also an amazing organization called Moms Stop the Harm which is a network of mothers who have lost children to addiction. They do national advocacy and provide peer support for families.

These are just two among many great resources – chat with your local addiction medicine physician for region specific resources.

Objective 7: In patients abusing substances, determine whether or not they are willing to agree with the diagnosis.
Objective 8: In substance users or abusers, routinely determine willingness to stop or decrease use.

In regards to “willingness” to agree to diagnosis, this can be reflective of stage of change, i.e. pre-contemplation vs other stages, but could also relate to concerns with labelling due to stigma.

This is good opportunity to discuss with the patient that substance use disorders are a chronic disease just like diabetes, HTN, asthma - there are genetic and environmental components; can be relapsing and remitting, and while there is no cure in the traditional sense, individuals goals vary, and improvement is not linear - this is a dynamic cycle in which people can move both forward and backward in stages throughout their life.

We will go through a brief review of the stages of change but check out our resources section for more details and for a BCCSU resource for families and caregivers, which has great patient-centered descriptions for each stage.

1. Precontemplation - No real insight into problem or intention of making changes
2. Contemplation - Aware a problem exists however no commitment to change
3. Preparation - Intent upon taking action
4. Action - Active modification of behaviour
5. Maintenance - Sustained change
6. Relapse - Return to old patterns of behaviour

Assessing your patient’s stage of change at follow ups can be a helpful way to tailor your support to their needs and meet them where they are at. Using your motivational interviewing skills can assist patients in moving through these stages by resolving ambivalence and increasing motivation over time.

Objective 9: In patients who abuse substances, take advantage of opportunities to screen for co-morbidities (e.g., poverty, crime, sexually transmitted infections, mental illness) and long-term complications (e.g., cirrhosis).

This objective points to taking a thorough history. In a patient presenting with substance use, it is important to try to understand the whole picture and context with which they are living in, especially social circumstances.
Going through a social history specific to substance use, we recommend asking the following:

- Housing
- Income - employment, government assistance, criminalized forms of income.
- Supports - family, friends, etc
- Partner - opportunity to ask about sexual history including history of or s/s of current STI and if open to it, discussing safe sex practices and/or involvement in sex work.
- Safety - very important to ask and document
    - Children - if there are minors in their care
    - Driving - do they drive and/or have access to a car? How long between substance use and driving?
    - Suicide - people with substance use disorders are at higher risk.
    - Safety-sensitive professions - mandatory reporting laws may exist in your jurisdiction, and you should work with the patient to support them while addressing the risk to the public, if present.
- Legal/forensic: incarcerations, history of DUI

In regard to long-term complications, it is important to understand the patient's past history and discuss monitoring of any known or at-risk conditions:

Past medical history

- Depending on substance and route of use, may target this but good to ask about
    - Hospitalizations
    - Infections - cellulitis, bacteremia, STI, hepatitis, HIV
    - Cirrhosis/liver disease
    - Renal function
        - Liver and renal function important for consideration of AUD medications
    - Cardiac history
        - Important for some OUD medications, and to address risk in people who use tobacco, alcohol, and stimulants, who are at higher risk of cardiovascular morbidity and mortality
    - Resp history - infectious, chronic eg asthma/COPD

It is also pertinent at this point to have a brief psychiatric history including history of anxiety, depression, ADHD, psychosis, PTSD, psychiatric hospitalizations, and history of suicide attempts.

Our expert reviewer pointed out that treating concurrent psychiatric disorders alongside a substance use disorder- is complex, and there can be competing priorities in treatment. Sometimes classically effective treatments for conditions like depression or ADHD may not be appropriate for people with active substance use disorder, so be sure to refer these patients on for expert management.

—----------

Resources:

https://www.cfpc.ca/CFPC/media/PDF/MIGS-2021-Addiction-Medicine-ENG-Final.pdf

- Incredible resource from CFPC with substance use screening, pharm and non-pharm management options, and other resources/tools for alcohol, nicotine, and opioid use disorders

https://www.cfpc.ca/CFPC/media/PDF/MIGS-2021-Addiction-Medicine-CFP-insert-ENG-web.pdf

- Single-page reference doc for treatment of AUD, OUD, TUD

https://www.cfpc.ca/CFPC/media/Resources/Chronic-Pain/MIGS-2021-Chronic-Pain-Infographics-Motivational-interviewing-ENG.pdf

- Motivational Interviewing resource from CFPC (this is labelled as chronic-pain however is general MI information with example script).

https://www.ncbi.nlm.nih.gov/books/NBK565474/table/table-3/

- DSM criteria for diagnosing substance use disorder: 2+ in a 12 month period = diagnostic
    - 2-3 = mild disorder
    - 4-5 = moderate
    - 6+ = severe

https://www.bccsu.ca/families-and-caregivers/treatment-care/

- BCCSU family and caregiver resource with patient-centred descriptions of stages of change

https://www.bccsu.ca/families-and-caregivers/

- BCCSU resources for families and caregivers of those who use substances.

https://crafft.org/wp-content/uploads/2021/07/CRAFFT_2.1N-HONC_Self-administered_2021-07-03.pdf

- Self-administered CRAFFT+N screening tool for substance use and risk-related behaviours in school-aged youth

https://crafft.org/wp-content/uploads/2021/07/CRAFFT_2.1N-HONC_Clinician_2021-07-03.pdf

- Clinician-administered CRAFFT+N screening tool for substance use and risk-related behaviours in school-aged youth

https://www.bccsu.ca/wp-content/uploads/2024/10/BCCSU-Acute-Care-Resources-Withdrawal.pdf

- BCCSU Managing acute opioid withdrawal and overdose

https://www.mdcalc.com/calc/1985/cows-score-opiate-withdrawal#when-to-use

- COWS score for opioid withdrawal

https://www.bccsu.ca/wp-content/uploads/2020/07/AUD-Table-Withdrawal-Management-Pathway-for-Adult-Patients-with-AUD.pdf

- BCCSU Withdrawal management pathway for alcohol withdrawal

https://www.mdcalc.com/calc/10102/prediction-alcohol-withdrawal-severity-scale

- Prediction of Alcohol Withdrawal Severity Scale

https://www.bccsu.ca/wp-content/uploads/2020/04/AUD-Pharmacotherapy-Tables.pdf

- BCCSU Pharmacotherapy table for alcohol use disorder and alcohol withdrawal

https://www.bccsu.ca/wp-content/uploads/2021/04/ATG-Managing-Co-occuring-Opioid-and-Alcohol-Use-Disorders.pdf

- BCCSU Managing co-occurring opioid and alcohol use disorders

Addiction Medicine History Template:
When assessing substance use, important aspects to cover for each substance include:

- Age first used
- Age became daily/problematic use, if relevant
- Route (smoke, intranasal, huffing, IV)
- Pattern of current use - frequency, amount
- Pattern of most heavy use (and when this occurred)
- Abstinence - longest period, when, what was helpful, what led to relapse?
- Patient concerns or reported consequences of use
- Assess stage of change

Additional specific questions for certain substances:

- Opioids: last use, overdose history
- Nicotine: time of first cigarette (eg. immediately when wakes up), methods tried for quitting
- Alcohol: last drink, history of blackouts, withdrawal history (seizures, DT), non-beverage use (eg. mouthwash), # standard drinks per day
    - Local resource created by researchers at UVic to calculate # standard drinks based on type of alcohol and volume: http://aodtool.cfar.uvic.ca/index-stddt.html
    -

Ensure to ask about commonly used and less commonly used substances, including:

    - Alcohol
    - Opioid
    - Benzodiazepine
    - Cocaine
    - Methamphetamine
    - Cannabis
    - Nicotine
    - Other - hallucinogens/ecstacy/club drugs, GHB, ketamine
- Prescription drug misuse

Past addiction treatment history:

- Addictions-relevant meds such as OAT, anti-craving meds
    - When, how long used, highest dose tried
    - Benefit - decreased use, improved social functioning
- Residential tx
- Outpatient tx
- Detox tx
- Counselling
- Mutual Help 12-step (AA, NA), non 12-step (Life Ring, Smart Recovery)

Social history:

- Housing
- Supports
- Income - employment, disability

Safety:

- Minors in care
- Driving/access to car
- Harm reduction

Legal

- Incarcerations
- DUIs