

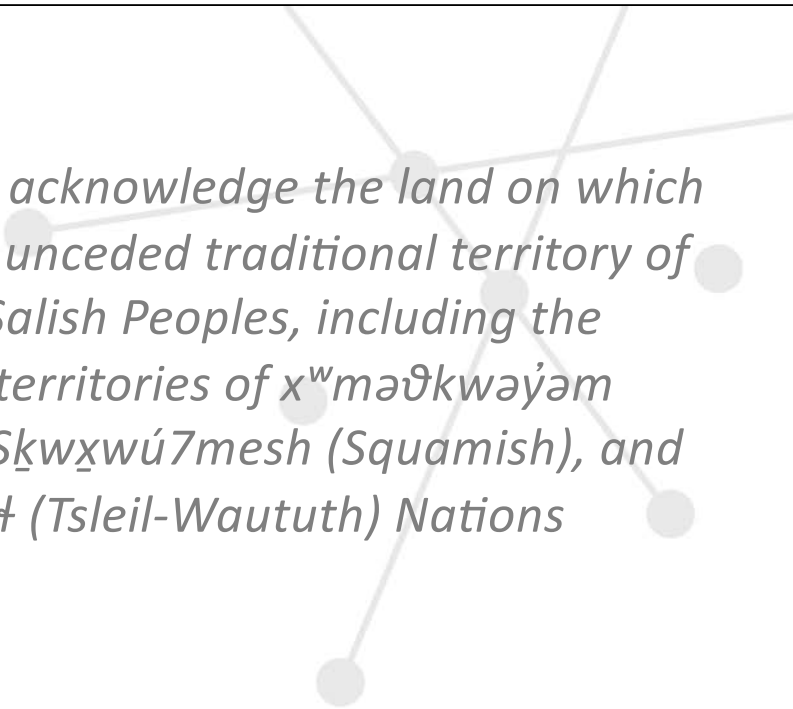


BRITISH COLUMBIA
CENTRE ON
SUBSTANCE USE

Networking researchers, educators & care providers

Overview of Opioid Use Disorder





We respectfully acknowledge the land on which we work is the unceded traditional territory of the Coast Salish Peoples, including the traditional territories of x^wməθkwəʔəm (Musqueam), Sk̓wx̓wú7mesh (Squamish), and Səlílwatał (Tseil-Waututh) Nations

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I respectfully acknowledge the land on which I work, play and live is the unceded traditional territory of the Coast Salish Peoples, including the traditional territories of x^wməθkwəʔəm (Musqueam), Sk̓wx̓wú7mesh (Squamish), and Səlílwatał (Tseil-Waututh) Nations

Learning Objectives

1. Identify high risk opioid use and opioid use disorder through screening methods
2. Diagnose opioid use disorder in the ED
3. Confidently manage patients who present with overdose
4. Recognize the spectrum of care in managing patients with opioid use disorder



1. Screening for Opioid Use Disorder

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First we will discuss screening for opioid use disorder.

Screening Tools

- It's important to screen ED patients
 - Less than 20% of patients with OUD present to ED seeking care for their OUD
 - It may be their only point of contact with care
- To date, there are no screening tools that have been validated in the ED for opioid use disorder
- Tools that have been recommended based on supporting data in other clinical settings and ease of use include:
 - CRAFFT (pediatric population)
 - NIDA quick screen
- If a patient screens positive, evaluate for OUD using DSM-5 criteria

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- Of patients with opioid use disorder who present to the ED, only 20% will be seeking care specifically related OUD.
 - These are often the only points of contact with the healthcare system, creating an important opportunity to provide support and interventions.
 - Unfortunately, there are no screening tools that have been validated within the ED settings. Despite this, reviews have identified some potential tools to use given evidence in supporting their utility in other clinical settings, and ease of use.
 - CRAFFT is well known in the pediatric population, and commonly used for screening many substance use disorder.
 - For adult populations, the NIDA questionnaire was recommended which we will review in the next slide.
 - A positive screening tool does not confirm a diagnosis of opioid use disorder. You should proceed to evaluate for the possibility of OUD by going through the DSM V criteria.
1. Coupet E, D'Onofrio G, Chawarski M, Edelman EJ, O'Connor PG, Owens P, et al. Emergency department patients with untreated opioid use disorder: A comparison of those seeking versus not seeking referral to substance use treatment. *Drug Alcohol Depen.* 2021;219:108428.

2. Sahota PK, Shastry S, Mukamel DB, Murphy L, Yang N, Lotfipour S, et al. Screening emergency department patients for opioid drug use: A qualitative systematic review. *Addict Behav.* 2018;85:139–46.
3. Hawk K, D’Onofrio G. Emergency department screening and interventions for substance use disorders. *Addict Sci Clin Pract.* 2018;13(1):18.

Quick Screen Question:	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
In the past year, how often have you used the following?					
Alcohol					
<ul style="list-style-type: none"> For men, 5 or more drinks a day For women, 4 or more drinks a day 					
Tobacco Products					
Prescription Drugs for Non-Medical Reasons					
Illegal Drugs					

Fig. 1 NIDA Quick Screen for substance use disorders. If the patient says “No” for all drugs in the Quick Screen, reinforce abstinence. **Screening is complete.** If patient says “Yes” to **one or more days of heavy drinking**, note that *patient is an at-risk drinker*. If patient says “Yes” to **use of tobacco**: Any current tobacco use places a patient at risk. If the patient says “Yes” to **use of illegal drugs or prescription drugs for non-medical reasons**, proceed to **Question 1** of the NIDA-Modified ASSIST. Adapted from NIDA Screening for Drug Use in General Medical Settings Resource Guide [67, 68]

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- This easy NIDA screening tool emphasizing the importance of simply asking around use of certain substances.
 - If a patient has used the substance in the past year, that is considered a positive screening result.
- Emergency departments can feel like a suboptimal environment to ask these question – concern around privacy, lack of prior relationship with the patient and known perceived stigma around using substances.
- Ensure that the question is asked in a patient-centred manner
 - Explain why you are asking this question
 - Ask permission to ask about substance use and allow patient to decline answering.
 - Normalize the question in your practice
 - Frame the question as being posed for benefit of the patient and their care
- An example would be:
 - “ I’m going to ask you a few questions around any substances you may use. Why I ask is to make sure I can address any withdrawal or other symptoms that might make your stay hard or uncomfortable. Is that Ok?”

Hawk K, D’Onofrio G. Emergency department screening and interventions for

substance use disorders. *Addict Sci Clin Pract.* 2018;13(1):18

Screening Tools

- Consider exploring the possibility of an OUD in the following scenarios
 - Signs of opioid withdrawal
 - Medical complications associated with substance use (e.g. recurrent cellulitis, endocarditis)
 - Overdose
 - Review of PharmaNet: recurrent opioid prescriptions, recent opioid agonist therapy

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- Presentation for overdose should prompt further discussion. Some patients may not have an opioid use disorder but have sustained an overdose from contaminated supply of stimulants for example. It still provides a great opportunity to discuss harm reduction strategies.
- Another strategy is to review recent prescriptions on PharmaNet.
 - Recurrent opioid prescriptions, from multiple providers and early refills
 - Prescription for opioid agonist therapy but some may be on these medications for chronic pain (typically prescribed at doses much lower doses relative to prescriptions for OUD)

BCCSU POATSP module 23-24



2. Diagnosis of Opioid Use Disorder

Opioid use disorder

- Once patient screens positive for possible OUD, diagnosis is made through DSM V criteria
- Establish a pattern of use leading to clinically significant impairment or distress occurring within a 12 month period by meeting minimum 2 criteria
 - Mild: 2-3 criteria
 - Moderate: 4-5 criteria
 - Severe: 6+ criteria

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- A diagnosis of OUD is made by meeting a minimum of two criteria that establishes a pattern of use leading to clinically significant impairment or distress occurring within the last 12 months
- OUD is further qualified by severity, related to the total number of criteria they meet.
 - 2-3 for mild
 - 4-5 for moderate
 - And 6 or more for severe

DSM-5 Criteria for Opioid Use Disorder

1	Opioids are often taken in larger amounts or over a longer period than was intended	The presence of at least 2 of these symptoms indicates an Opioid Use Disorder (OUD)
2	There is a persistent desire or unsuccessful efforts to cut down or control opioid use	
3	A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects	
4	Craving or a strong desire to use opioids	
5	Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home	
6	Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids	The severity of the OUD is defined as:
7	Important social, occupational, or recreational activities are given up or reduced because of opioid use	MILD: The presence of 2 to 3 symptoms
8	Recurrent opioid use in situations in which it is physically hazardous	MODERATE: The presence of 4 to 5 symptoms
9	Continued use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by opioids.	
10	Tolerance,* as defined by either of the following: a) Need for markedly increased amounts of opioids to achieve intoxication or desired effect b) Markedly diminished effect with continued use of the same amount of opioid	SEVERE: The presence of 6 or more symptoms
11	Withdrawal,* as manifested by either of the following: a) Characteristic opioid withdrawal syndrome b) Same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms	

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These are the 11 criteria, which can feel overwhelming to remember, and apply during a busy ED shift.

DSM V Shortcuts

4 "C"s

- Cravings
- Loss of **control**
- **Compulsion** to use
- Use despite **consequences**

ED Focused

- Cravings
- Withdrawal (physiologic changes)
- Consequences of use (poisonings, infections)

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- Application of DSM V criteria in the ED is not often feasible. For initiation of buprenorphine or diagnosis for referral to further services, there only needs to be identification of 2 criteria to meet the minimum.
- Two shortcuts to quickly remember most of the criteria are:
 - Four Cs
 - ED focusing: asking about cravings, looking for or asking about withdrawal, and presenting with consequences related to use (infections such as cellulitis or endocarditis, poisonings/overdoses)

Urine Drug Testing (UDT)

- Also known as urine drug screens (UDS)
- Not used for diagnosis of OUD, but to guide treatment
- Examples include:
 - Confirming opioid use
 - Assessing adherence to treatment
 - Validating self-reported use of substances
 - Detecting presences of other substances
 - Evaluating treatment response
- Beware of the limitations of UDT
 - Lack of temporal relation to use given detection window
 - Cannot identify frequency, amount or intentional use
 - False positive/negatives

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- DSMV criteria is used to diagnosis OUD. UDT are used to guide decision making on best treatment.
 - Examples on how this may guide treatment include assessing for ongoing illicit opioid use and detecting other substances to assess for potential risks of interventions.
 - For ED based interventions, given the safety profile of buprenorphine, a urine drug screen during the visit is ideal prior to initiation of therapy but not required. Consider reviewing the patient's chart to see if one has been completed in the last 6-12 months.
 - As with any investigation or test, it is important to understand the limitations of a test to appropriately apply it to your clinical context
1. Centre for Addiction and Mental Health. Opioid Agonist Therapy: A Synthesis of Canadian Guidelines for Treating Opioid Use Disorder. Published May 2021. Available at www.camh.ca
 2. British Columbia Centre on Substance Use and B.C. Ministry of Health. A Guideline for the Clinical Management of Opioid Use Disorder. Published June 5, 2017. Available at: <http://www.bccsu.ca/care-guidance-publications/>
 3. British Columbia Centre on Substance Use, BC Ministry of Health, and Ministry of

Mental Health and Addictions. Urine Drug Testing in Patients Prescribed Opioid Agonist Treatment— Breakout Resource. Published July 28, 2021. Available at: <https://www.bccsu.ca/opioid-use-disorder/>

Urine Drug Testing (UDT)

- It is important to be aware of the limitations of each test
 - Many common UDT do not test for oxycodone, buprenorphine, fentanyl
- False negative/positive (specific to test)
 - False negative
 - Semisynthetic/synthetic opioids – will not be positive for opioid on most UDT
 - False positive
 - Amphetamines – ranitidine, trazadone, bupropion
 - Risperidone – fentanyl

Substance	Detection Window
Methadone	≤ 3 days (methadone) and ≤ 6 days (metabolites)
Buprenorphine	≤ 7 days
Morphine	2–5 days
Fentanyl	Up to 4 weeks (if chronic use present)

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- UDT results should not guide current presentation management if assessing for a particular toxidrome.
 - Urine drug screens can be positive for methadone metabolites and buprenorphine up to 7 days, many short acting opioids up to 5 days, and fentanyl up to 2-4 weeks if the individual is consuming large amounts daily.
- False positives and negatives are not restricted to those listed on this slide.
 - Amphetamines will have several medications that will cause a false positive, but common ones are listed above.
- For more details around the application and interpretation of UDS, please refer to the UDT breakout resource from the BCCSU.

British Columbia Centre on Substance Use, BC Ministry of Health, and Ministry of Mental Health and Addictions. Urine Drug Testing in Patients Prescribed Opioid Agonist Treatment— Breakout Resource. Published July 28, 2021. Available at: <https://www.bccsu.ca/opioid-use-disorder/>

Screening Blood Work and Investigations

- Not required for management of OUD in the ED, but helpful
- Investigations to help guide OAT (metabolism and side effects)
 - Methadone: ECG, liver function
 - Slow-release oral morphine/morphine: renal function, liver function
 - Buprenorphine/naloxone: liver function
 - bHCG
- Bloodwork to screen for consequences of use
 - Performed yearly if patient is considered high risk
 - HIV, HCV, STIs (syphilis, GC, chlamydia)

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- These investigations can be difficult to obtain in the community, especially for unstable patients. It can be helpful to their usual providers to obtain these tests in the ED.
- Investigations that are helpful in guiding OAT by assessing for any derangements in metabolism or any potential side effect include ECG to assess for QTc, liver function, renal function and bHCG.
 - Women in early stages of their pregnancy and concurrent OUD may frequently present to the ED and are often unattached to primary care.
- BCCSU recommends yearly screening for HIV, HCV, and other STIs in those with risk factors. Having established pathways, such as low barrier clinics, to help follow up these results is ideal.

1. Centre for Addiction and Mental Health. Opioid Agonist Therapy: A Synthesis of Canadian Guidelines for Treating Opioid Use Disorder. Published May 2021. Available at www.camh.ca
2. British Columbia Centre on Substance Use and B.C. Ministry of Health. A Guideline for the Clinical Management of Opioid Use Disorder. Published June 5, 2017. Available at: <http://www.bccsu.ca/care-guidance-publications/>

3. Harvey, Leah MD, MPH; Taylor, Jessica L. MD; Assoumou, Sabrina A. MD, MPH; Kehoe, Jessica RN; Schechter-Perkins, Elissa M. MD, MPH; Bernstein, Edward MD; Walley, Alexander Y. MD, MSc Sexually Transmitted and Blood-borne Infections among Patients Presenting to a Low-barrier Substance Use Disorder Medication Clinic, *Journal of Addiction Medicine*: January 27, 2021 - Volume – Issue doi: 10.1097/ADM.0000000000000801

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Difficult to obtain in the community, especially for more unstable patients
Especially difficult to obtain ECGs



3. General Approach to Caring for the Patient with OUD in the ED

General Approach to management of OUD

- General Approach
 - Brief history
 - Physical exams: signs of opioid intoxication or withdrawal, rule out co-occurring toxidromes
 - Management
 - Trauma-informed practice
 - Reversal of opioid poisoning
 - Avoidance of withdrawal and maintain tolerance
 - Harm reduction/safer use
 - Engage in OAT
 - Initiation of buprenorphine/naloxone in ED
 - Connection to care in community to access other forms of OAT

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- Complete a brief history to confirm the diagnosis
- Physical exam can help identify opioid toxicity or withdrawal that may require interventions.
- Offer life saving interventions, such as ways to use more safely and a review the possibility of OAT initiation
- All care should be underpinned with principles of trauma informed practice to make patients feel at ease with discussing their treatment goals.

History

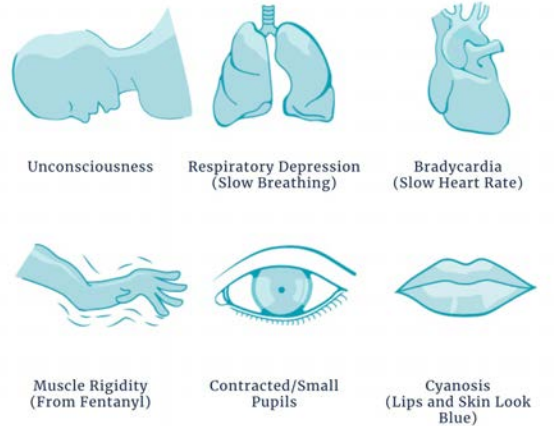
- **Anticipate withdrawal**
 - Last use
 - Prior experience: onset, symptoms
- **Address consequences of use**
 - Infections (endocarditis, cellulitis, septic arthritis)
 - Overdoses
- **Discuss harm reduction strategies**
 - Avoid using alone, access to equipment and supports, take home naloxone
- **Connection to care**
 - Current or prior OAT
 - Connected to primary care/prescriber
- **Other**
 - Daily amount
 - Points, grams, “8-ball”
 - Method of use: smoke, IV, oral, insufflate

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- Will help confirm diagnosis of OUD, but also identify potential interventions to reduce harms and facilitate stay in ED
 - Always ask permission prior and explain why.
- Anticipate withdrawal:
 - What are their typical symptoms and when is the onset since last use.
- Consequences of use
 - Rates of non fatal overdoses increase risk of fatal overdose
- Other
 - Reported daily use often described in points (1/10 of g), grams or 8 Ball (1 ounce or 3.5 g)

Opioid Intoxication – Physical Exam

- Mental Status: euphoric, sedated, coma
- Vitals: ↓RR/HR
- H+N: Pupils –miosis
- Resp: pulmonary edema
- Skin: +/-track marks



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- Key features to remember to help differentiate from other toxidromes includes a “sedated” or depressed level of consciousness, decrease RR and pinpoint pupils.

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Opioid Withdrawal – Physical Exam

- Mental Status: agitated, pacing
- Vitals: ↑ HR/BP
- H+N: dilated pupils, diaphoresis, yawning, rhinorrhea
- GI: nonspecific abdo pain → vomiting/diarrhea
- MSK: mild tremor, discomfort (rubbing joints/limbs)
- Derm: diaphoresis, piloerection/goosebumps
- Neuro: restlessness → akathisia

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- Signs that are the most specific to opioid withdrawal include piloerection. If unsure, look for a response or reversal of these symptoms with a trial of opioids.
- Akathisia is seen at times for severe withdrawal from fentanyl, especially in the context of precipitated withdrawal

<p>Resting Pulse Rate: _____ beats/minute <i>Measured after patient is sitting or lying for one minute</i></p> <p>0 pulse rate 80 or below 1 pulse rate 81-100 2 pulse rate 101-120 4 pulse rate greater than 120</p>	<p>GI Upset: <i>over last 1/2 hour</i></p> <p>0 no GI symptoms 1 stomach cramps 2 nausea or loose stool 3 vomiting or diarrhea 5 multiple episodes of diarrhea or vomiting</p>
<p>Sweating: <i>over past 1/2 hour not accounted for by room temperature or patient activity.</i></p> <p>0 no report of chills or flushing 1 subjective report of chills or flushing 2 flushed or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face</p>	<p>Tremor <i>observation of outstretched hands</i></p> <p>0 no tremor 1 tremor can be felt, but not observed 2 slight tremor observable 4 gross tremor or muscle twitching</p>
<p>Restlessness <i>Observation during assessment</i></p> <p>0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/arms 5 unable to sit still for more than a few seconds</p>	<p>Yawning <i>Observation during assessment</i></p> <p>0 no yawning 1 yawning once or twice during assessment 2 yawning three or more times during assessment 4 yawning several times/minute</p>
<p>Pupil size</p> <p>0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible</p>	<p>Anxiety or Irritability</p> <p>0 none 1 patient reports increasing irritability or anxiousness 2 patient obviously irritable or anxious 4 patient so irritable or anxious that participation in the assessment is difficult</p>
<p>Bone or Joint aches <i>If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored</i></p> <p>0 not present 1 mild diffuse discomfort 2 patient reports severe diffuse aching of joints/muscles 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort</p>	<p>Gooseflesh skin</p> <p>0 skin is smooth 3 piloerection of skin can be felt or hairs standing up on arms 5 prominent piloerection</p>
<p>Runny nose or tearing <i>Not accounted for by cold symptoms or allergies</i></p> <p>0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks</p>	<p style="text-align: right;">Total Score _____</p> <p style="text-align: center;">The total score is the sum of all 11 items</p> <p>Initials of person completing assessment: _____</p>

This is well laid out in the clinical opiate withdrawal scale, or the COWS scale.

Management – Opioid Intoxication/Poisoning

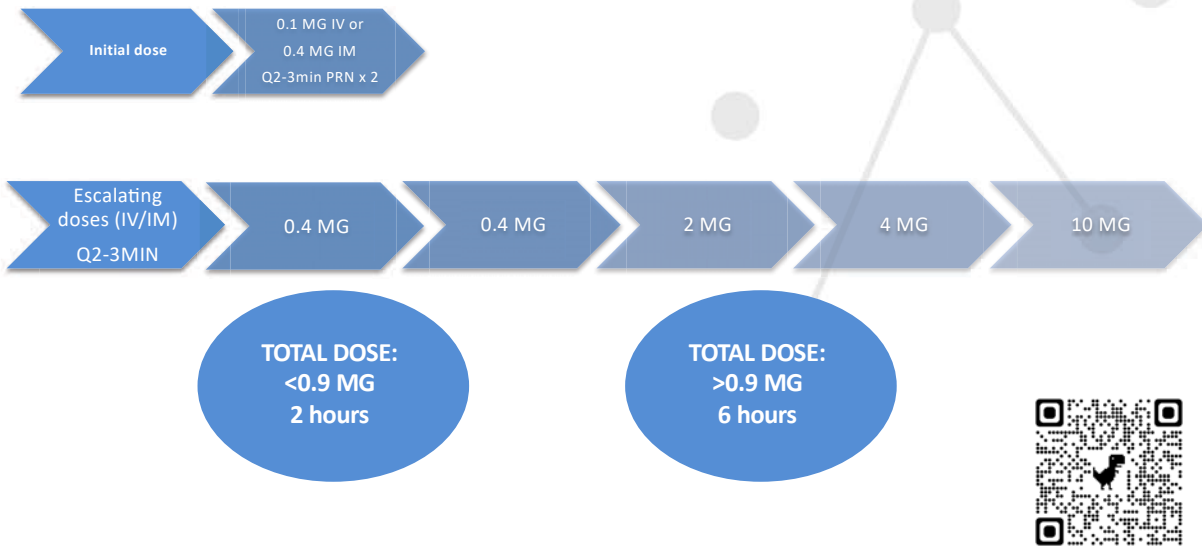
- Indications for naloxone
 - Meets criteria for opioid toxidrome on exam
 - Decrease level of consciousness
 - Respiratory compromise: RR<8-10, Saturations<90-92%
- Use minimal effective dose to avoid withdrawal
- Provide with safer use and harm reduction interventions (see module)
 - Take home naloxone

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- The goal is to reverse respiratory compromise by using minimal effective dose in efforts to avoid withdrawal.

https://www.bcemergencynetwork.ca/clinical_resource/opioid-overdoses-management/

Naloxone Dosing



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QR code linking to BCEMN post

https://www.bcemergencynetwork.ca/clinical_resource/opioid-overdoses-management/.

[Boyer EW. Management of opioid analgesic overdose. New England Journal of Medicine. 2012 Jul 12;367\(2\):146-55.](#)

Management – Opioid Intoxication/Poisoning

- Presence of adulterants may affect response to naloxone
 - e.g., fentanyl: Higher doses of naloxone may be required to reverse an overdose
- Common adulterants
 - Fentanyl and its analogues
 - Stimulants
 - Benzodiazepines

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- Fentanyl and its analogues may cause a more prolonged period of toxicity and may require larger doses of naloxone.
- Stimulants intoxication may be unmasked initially with administration of naloxone, with your patient appearing more agitated than anticipated.
 - If there is a prolonged stay in the department, stimulant withdrawal may cause sedation. Ensure to rule out opioid toxicity but checking for miotic pupils.
- Benzodiazepines are known to increase toxicity of opioids. Their presence in the drug supply will cause prolonged periods of decrease LOC and less responsiveness to naloxone.

Payer, D.E., Young, M.M., Maloney-Hall, B., Mill, C., Leclerc, P., Buxton, J., the Canadian Community Epidemiology Network on Drug Use, & the National Drug Checking Working Group. (2020). Adulterants, contaminants and co-occurring substances in drugs on the illegal market in Canada: An analysis of data from drug seizures, drug checking and urine toxicology. Ottawa, Ont.: Canadian Centre on Substance Use and Addiction.

Fentanyl and other synthetic analogue overdose

Higher doses of naloxone may be required to reverse overdose.¹⁴

This is due to high systemic levels of fentanyl and greater penetration of fentanyl into the CNS (compared to morphine, for example).¹⁴

Most commonly seen is etizolam. Since naloxone reversed only the opioid effect, you will note less than expected response to naloxone doses as well as prolonged periods of altered level of consciousness. Patients may require near 24 hours of recovering

Stimulants -

Management – Opioid Toxicity and OAT

- Opioid tolerance can change in acute care due to changes in:
 - Ability to metabolize opioids: sepsis, acute hepatic illness
 - Ability to tolerate sedation: acute respiratory illness, co-prescribed sedatives (antipsychotics, benzodiazepines)

Tolerance prior to hospital ≠ tolerance in hospital

Management – Opioid Toxicity and OAT

- If from prescribed OAT, can be due to:
 - Buprenorphine – opioid naïve patients (uncommon)
 - Higher and longer doses of naloxone may be required
 - Methadone – variability in metabolism
 - Slow-release oral morphine – renal impairment
- Hold doses of OAT till patient is more alert and provide IR opioids to address withdrawal as needed
- If Illicit ingestions of diverted OAT
 - In patients with no tolerance, will require high acuity monitoring and may require naloxone administration

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- Toxicity can occur from several reasons: change in tolerance from an acute medical illness, rapid titration of OAT or consumption of diverted or illicit OAT.
- If concerned about toxicity, hold any further doses of opioid agonist therapy and rely on IR Opioids.
- Buprenorphine/naloxone is safe in those with opioid tolerance. In patients who are opioid naïve (i.e. pediatric patient), they can experience toxicity from buprenorphine, but this is uncommon.
 - High affinity for the mu receptor and long half life will require higher doses and longer infusions of naloxone.
- Methadone's metabolism is influenced by many factors from medications to the person's clinical status.
- Renal impairment can cause metabolites from morphine

(SR0M) to accumulate.

See references from POATSP

Management - Withdrawal

- Onset of withdrawal will depend on the type of opioid
 - IR opioids (hydromorphone, morphine, heroin): 4-6 hours
 - Fentanyl: 4-6 hours
 - Long-acting opioids(including OAT) – dose dependent
 - Methadone and slow-release oral morphine: +24 hours
 - Buprenorphine: 24-36 hours

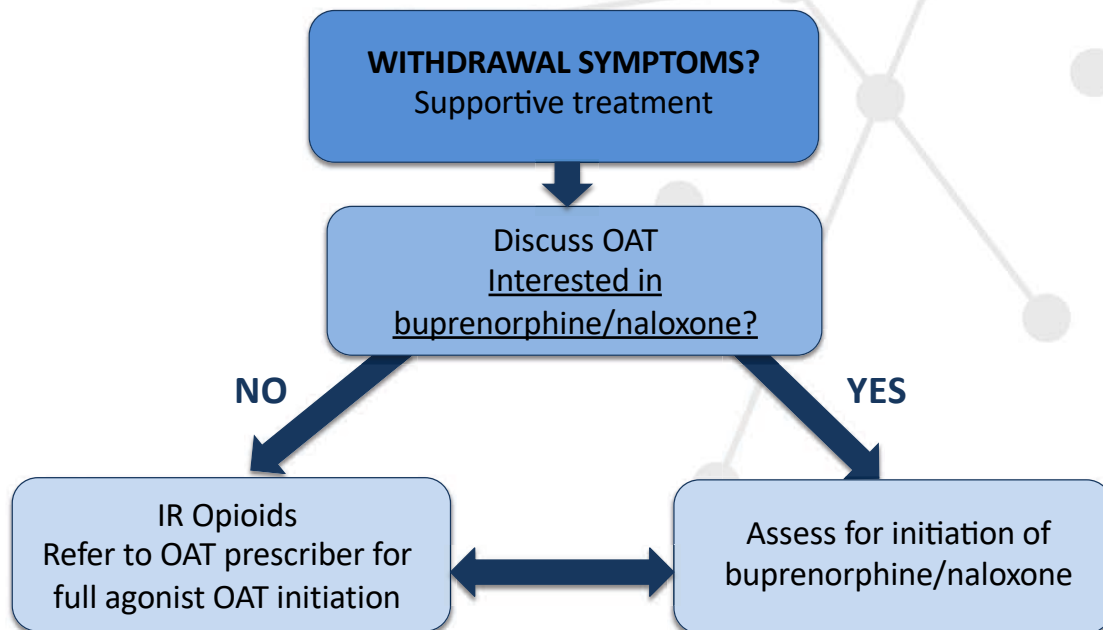
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Onset of withdrawal will depend on the type of opioid consumed

- Typically for IR opioids such as hydromorphone, morphine or heroin, onset is around 4-6 hours. Peak symptoms will occur around 10-12 hours
- This is similar for fentanyl, and at times patient will report symptoms even sooner. Why this remains in a separate category is some patients will report delayed symptoms and this is because of the lipophilicity of fentanyl. Peak withdrawal symptoms for fentanyl often will take a day or two to manifest
- Long acting opioids, such as OAT, onset of symptoms will depend on their dose. At stable and higher doses, the onset of withdrawal only occurs greater than 24 hours post dose.

POATSP

Management – Withdrawal and OAT initiation



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- Patient has been diagnosed with OUD and has withdrawal symptoms
 - Order adjunctive, non opioid treatment until you can discuss next steps
- Assess for possibility of buprenorphine/naloxone – either through standard induction in the ED, community initiation or other approaches (microinduction)
- Some patients withdrawal symptoms may be too severe to discuss OAT initiation and provide informed consent. Order IR opioids to address symptoms and review referral to OAT Provider for initiation of full agonist OAT or ongoing discussion around buprenorphine/naloxone induction.
- Patients may choose one therapy, but subsequently request another.

Withdrawal Management Alone

- Withdrawal management alone refers to technique such as rapid OAT taper, supportive management alone (clonidine), and abrupt cessation of any opioids
- Strong recommendation against this strategy by OUD guidelines
- **Withdrawal management alone associated with:**
 - High rates of relapse
 - High risk of overdose (due to loss of tolerance)
 - Increased risk of transmission of infection (HIV, HCV)

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- Withdrawal management alone is defined as patients who undergo rapid OAT tapers, only use non opioid adjuncts to support them through the withdrawal period or abrupt cessation of any opioids, and this includes illicit.
- Many guidelines strongly recommended against this strategy due to associated high rates of relapse and associated risk of overdose due to loss of tolerance and increase risk of transmission of infections like HIV and HCV.

British Columbia Centre on Substance Use and B.C. Ministry of Health. A Guideline for the Clinical Management of Opioid Use Disorder. Published June 5, 2017. Available at: <http://www.bccsu.ca/care-guidance-publications/>

Transition of Care

- The transition of care from the ED should aim to support the health and safety of patients
 - Standardize approach with checklist (DST)
- Order THN early in the patient's stay and have at their bedside
- Review harm reduction and safer use
- Ensure medication coverage is in place (Plan G)

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- Try using a standardized approach with a checklist, with LOUD in the ED having developed one example.
- Order THN for everyone. Consider ordering it early and having it at the bedside
- Ensure Harm reduction/safer use reviewed and offer supplies if you have them in your ED
- Ensure they have medication coverage. Delegate these tasks to your social work or pharmacies if available, and if overnight, it can be done the next morning.

Transition of Care - OAT

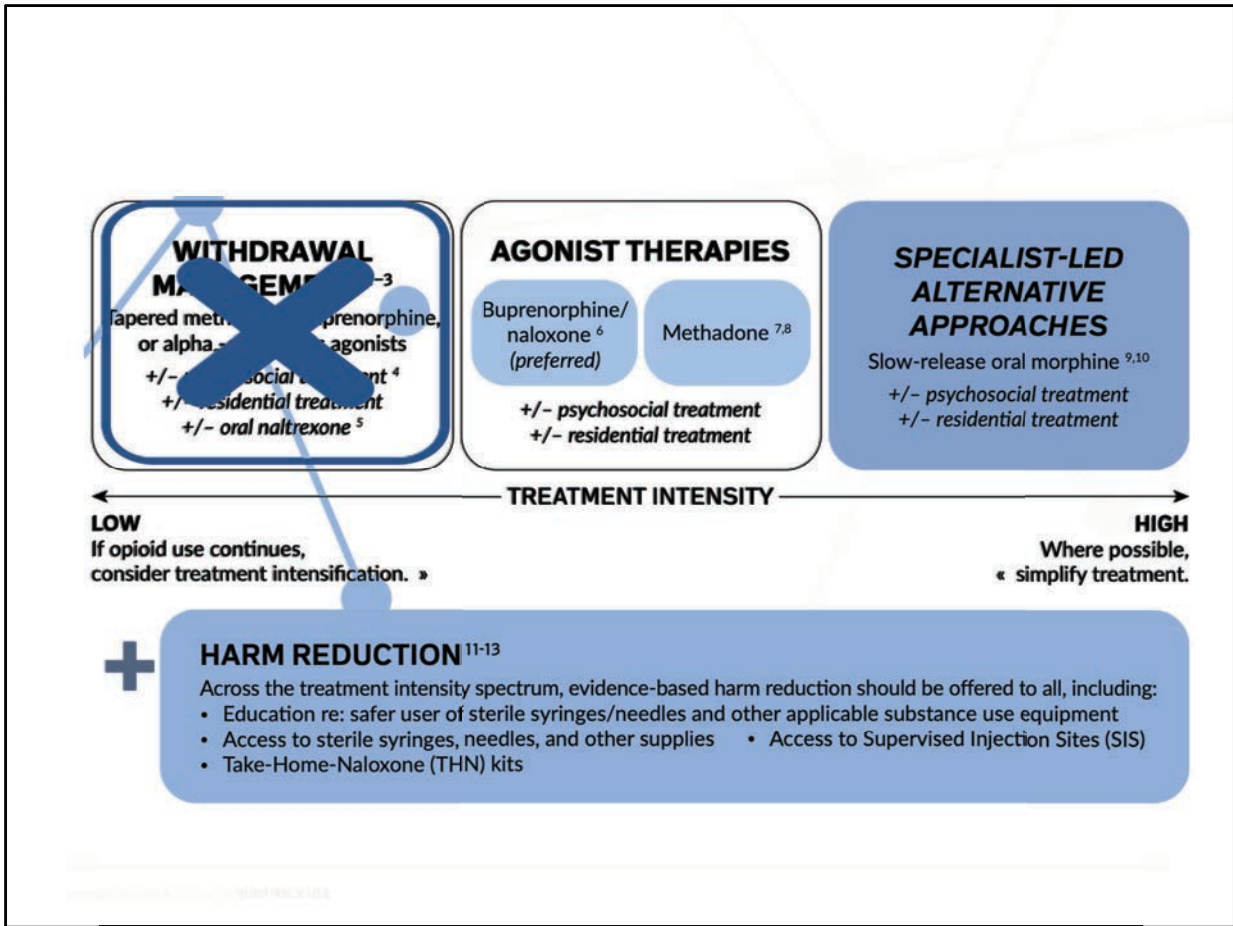
- Ensure referrals for initiation or continuation of OAT
 - Use a standard referral process
 - Send documentation or pre-set referral sheet
 - Identify quick, low barrier community follow up for OAT care
- Provide prescription for continuation of OAT
 - ERPs: buprenorphine/naloxone
 - Refer to specialist/OAT provider for full agonist OAT (methadone, SROM)

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- ERPs can provide a buprenorphine/naloxone prescription on discharge to bridge patients to community follow up. Use “to go packs” if available at your center.
- For other OAT, you require completion of POATSP course to provide discharge prescriptions.



4. Review of Pharmacotherapy for Management of Opioid Use Disorder



- OAT initiation is recommended for management of OUD given it reduces all cause mortality, withdrawal symptoms and transmission of infections like HIV/HCV.
- Discuss avoiding withdrawal management alone. This is not recommended due to the high risks of relapse and overdoses associated with this strategy.
- There are 1st, 2nd and 3rd line OAT reported, buprenorphine, methadone and SROM respective. This is related to safety profile, and evidence around its benefits. Rather a hierarchal approach to OAT, its seen as horizontal spectrum of care to meet the patients needs. Underpinning all strategies is a foundation of harm reduction.

British Columbia Centre on Substance Use and B.C. Ministry of Health. A Guideline for the Clinical Management of Opioid Use Disorder. Published June 5, 2017. Available at: <http://www.bccsu.ca/care-guidance-publications/>

Medications for Opioid Use Disorder

- Oral Medications
 - Partial agonist: buprenorphine/naloxone
 - Full agonist: methadone, slow-release oral morphine
- Injectable medications
 - Injectable opioid agonist therapy: iOAT
 - Hydromorphone, diacetylmorphine
- Other emerging therapies

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- Medications being used for opioid use disorder currently include oral and injectable forms.
- Injectable medications, or IOAT are available to patients with severe OUD who have not otherwise stabilized on oral OAT. They receive hydromorphone or diacetylmorphine(also known as heroin) supervised within specialty clinics.
- There is not equitable access to all therapies depending on location.
 - Rural areas with more difficult pharmacy access, buprenorphine may be the only options.
 - Some pharmacies may not carry SROM.
- Emerging interventions include other harm reduction strategies, such as risk mitigation or “Safer supply” with hydromorphone tabs.

	Buprenorphine/ Naloxone	Methadone	Slow Release Oral Morphine
	Partial agonist	Full Agonist	Full Agonist
Advantages	<ul style="list-style-type: none"> - Safety - More flexibility for take home doses - Quicker to achieve therapeutic doses - Fewer drug interactions 	<ul style="list-style-type: none"> - Better retention - Strong base of evidence for treatment of OUD 	<ul style="list-style-type: none"> - No QT prolongation - Equal effectiveness to methadone - Fewer drug interactions
Disadvantage	<ul style="list-style-type: none"> - Initiation can be a barrier for some patients - Potential for higher drop out 	<ul style="list-style-type: none"> - Higher risk for OD - Greater side effect profile - Greater drug interaction - Potential for QT prolongation 	<ul style="list-style-type: none"> - CI in renal impairment - Greater risk of diversion - Less evidence

ERP

OAT PROVIDER

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- Buprenorphine is first line due to its safety profile and considered a reasonable intervention for ERPs to provide.
 - In patients with opioid tolerance, there is a ceiling for respiratory depression. This allows for more flexibility with take home doses and quicker titration to achieve therapeutic doses.
 - Some barriers include initiation.
- Other medications such as methadone and SROM are full agonist, and do not have a ceiling for respiratory depression. Initiation and prescribing should be deferred to those with clinical expertise and training.

OAT review

	Mu receptor activity	Metabolism	Initiation	Stability	Dose Reduction (Missed days)	Adverse effect/Risk
First line: Bup/nlx (Suboxone)	partial	hepatic	12-16mg	12-24mg+ Will have carries	After 6 days	Lack of sedation GI upset
2 nd Line: Methadone	full	hepatic	30 mg	80-200mg+ DWI*	3-4 days: 50% 5+ days: restart	Sedation (sedatives) Variable metabolism QT prolongation
3 rd line: SROM (kadian)	full	Hepatic/ renal clearance	60-200mg	800- 2000mg+ DWI	2 days: 40% 3 days: 60% 4 days: 80%	Renal clearance – build up of metabolites Sedation

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This slide provides a quick overview of the three oral OAT therapies, including anticipating stabilization dose, approach to missed doses and review of metabolism.

Question

- What is not a diagnostic criteria for Opioid Use Disorder?
 - A. Cravings
 - B. Legal consequences
 - C. Needing to consume more to achieve the same effect
 - D. Experiencing withdrawal symptoms upon cessation

Question

- What is not a diagnostic criteria for Opioid Use Disorder?
 - A. Cravings
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 - C. Needing to consume more to achieve the same effect
 - D. Experiencing withdrawal symptoms upon cessation

Question

- There are validated scales for screening opioid use disorder in the ED?
- A. True
- B. False

Question

- There are validated scales for screening opioid use disorder in the ED?

A. True

B. False

References

1. Coupet E, D'Onofrio G, Chawarski M, Edelman EJ, O'Connor PG, Owens P, et al. Emergency department patients with untreated opioid use disorder: A comparison of those seeking versus not seeking referral to substance use treatment. *Drug Alcohol Depen.* 2021;219:108428.
2. Sahota PK, Shastry S, Mukamel DB, Murphy L, Yang N, Lotfipour S, et al. Screening emergency department patients for opioid drug use: A qualitative systematic review. *Addict Behav.* 2018;85:139–46.
3. Hawk K, D'Onofrio G. Emergency department screening and interventions for substance use disorders. *Addict Sci Clin Pract.* 2018;13(1):18
4. Provincial Opioid Addiction Treatment and Support Program. Available at: <https://www.bccsu.ca/provincial-opioid-addic1on-treatment-support-program/>
5. Centre for Addiction and Mental Health. Opioid Agonist Therapy: A Synthesis of Canadian Guidelines for Treating Opioid Use Disorder. Published May 2021. Available at www.camh.ca
6. British Columbia Centre on Substance Use and B.C. Ministry of Health. A Guideline for the Clinical Management of Opioid Use Disorder. Published June 5, 2017. Available at: <http://www.bccsu.ca/care-guidance-publications/>
7. British Columbia Centre on Substance Use, BC Ministry of Health, and Ministry of Mental Health and Addictions. Urine Drug Testing in Patients Prescribed Opioid Agonist Treatment— Breakout Resource. Published July 28, 2021. Available at: <https://www.bccsu.ca/opioid-use-disorder/>
8. Harvey, Leah MD, MPH; Taylor, Jessica L. MD; Assoumou, Sabrina A. MD, MPH; Kehoe, Jessica RN; Schechter-Perkins, Elissa M. MD, MPH; Bernstein, Edward MD; Walley, Alexander Y. MD, MSc Sexually Transmitted and Blood-borne Infections among Patients Presenting to a Low-barrier Substance Use Disorder Medication Clinic, *Journal of Addiction Medicine*: January 27, 2021 - Volume – Issue doi: 10.1097/ADM.0000000000000801
9. **Boyer EW. Management of opioid analgesic overdose. *New England Journal of Medicine.* 2012 Jul 12;367(2):146-55.**
10. Payer, D.E., Young, M.M., Maloney-Hall, B., Mill, C., Leclerc, P., Buxton, J., the Canadian Community Epidemiology Network on Drug Use, & the National Drug Checking Working Group. (2020). Adulterants, contaminants and co-occurring substances in drugs on the illegal market in Canada: An analysis of data from drug seizures, drug checking and urine toxicology. Ottawa, Ont.: Canadian Centre on Substance Use and Addiction.



Add references