

NALOXONE RISK ASSESSMENT

Intended audience: Non-public sector organizations.

Introduction:

BC is currently experiencing a public health emergency related to the unprecedented increase in opioid overdoses across the province. Many organizations are assessing whether their staff should carry or stock naloxone in the event employees, clients, or members of the public experience an overdose. This assessment provides tools for decision making including a template (Appendix A), a reporting template (Appendix B), and background information on naloxone and the public health emergency response. (Appendix C).

Purpose

The purpose of this risk assessment tool is to support decision-making regarding:

- Part 1:** whether your organization should obtain naloxone to respond to potential overdoses in employees/staff, and clients/public;
- Part 2:** what formulation (i.e., intramuscular or intranasal) your organization may wish to obtain; and
- Part 3:** how to procure naloxone and access training.

Organizations that are considering whether to implement a naloxone policy are also encouraged to examine proactive measures to protect staff, clients, and members of the public from harms associated with an overdose. Examples of proactive measures include increased overdose prevention and response training, public awareness and education, and access to personal protective equipment, where appropriate. These measures may help mitigate some of the risks that naloxone is intended to address.

Naloxone

Naloxone is a drug that can reverse an opioid overdose (rather than exposure). Opioids are a class of drug or medication which includes heroin, morphine, fentanyl, methadone, and codeine. Naloxone is available in intramuscular (i.e., injectable) and intranasal (i.e., nasal spray) formulations. Naloxone is available without a prescription to anyone in British Columbia for emergency use to reverse opioid overdose, and regulatory changes have made it possible for anyone to administer naloxone in any formulation with the appropriate training.

Naloxone can reverse the effects of an overdose within three to five minutes. Additional doses may be needed if the first dose does not restore normal breathing after three to five minutes. The effects of naloxone last 20 to 90 minutes, so it only reverses the overdose temporarily; immediate medical attention must be sought, and subsequent doses may be needed. Naloxone does not reverse non-opioid overdoses, but will not cause harm if administered to someone who has taken a non-opioid drug. Naloxone should be part of the response to an unresponsive person who has overdosed, in accordance with the SAVE ME protocol, particularly if they are breathing slowly or not at all.

While anyone in BC can administer naloxone with adequate training, organizations should clarify their expectations for employees that are trained to administer naloxone as part of their duties and use existing mechanisms for assessing occupational health and safety considerations.

Part 1 – Determining if you should stock naloxone in your setting

This section outlines some of the considerations for determining whether your organization should obtain naloxone to administer to employees, clients, or members of the public who have overdosed. The decision as to whether your organization should obtain naloxone should be based on the likelihood that staff will encounter an individual who has overdosed and the potential consequence of not having naloxone available.

Evidence to date in BC:

1) Risk of overdose in employees during their regular duties:

BC's Provincial Health Officer has noted that the risk of unintended fentanyl and fentanyl-analogue exposures to those providing emergency care to someone who has overdosed is extremely low. There have been no reported cases of secondary exposures of fentanyl to individuals administering naloxone, despite thousands of overdose reversals in the field throughout the province. Also, there have been very few instances of contact toxicity, and of those, all have been primarily in policing or as a result of being in closed/confined spaces with large quantities of powdered fentanyl and not related to contact due to providing treatment to someone who has overdosed.

2) Risk of overdose in clients/members of the public:

Determining the likelihood of an overdose in your setting requires you to think about what you know about people accessing services in your setting, and what information you may not have. You may not know if people who use drugs (particularly heroin or other opioids, and stimulants such as cocaine, crack cocaine, and crystal methamphetamine) access your services. While the rate of overdose events and death in BC varies by region and setting, people who use drugs are at risk of overdose across the province and in multiple settings.

Likelihood of Encountering an Individual who has overdosed

- Do staff regularly encounter people who have overdosed? or
- Do staff regularly encounter people who may use drugs? or
- Do staff regularly encounter people in recovery from a drug use disorder? or
- Do staff regularly encounter illegal drugs or unknown substances?

If you determine the likelihood of encountering someone experiencing an overdose is high, naloxone should be considered.

However, if the likelihood is low, it is next important to consider the consequences of not having naloxone available in your setting should someone experience an overdose.

Administering naloxone is only one aspect of an effective response to an opioid overdose.

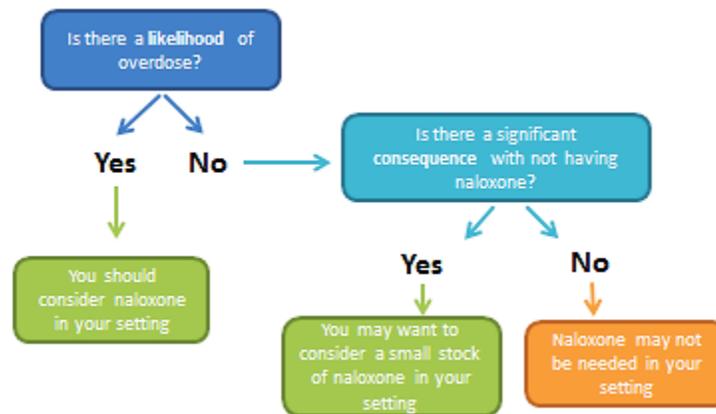
People responding to a suspected overdose should first call 911 and then work through the SAVE ME protocol, which includes providing rescue breaths (see Appendix C) while waiting for first responders to arrive.

Potential Consequence of Not Having Naloxone Available

- Does your organization have a mandated duty to provide care for clients?
- If naloxone were not available in this setting, what would the consequences be if an overdose were to occur?
- Does your organization operate in an area(s) that first responders can access easily and in a timely way?

Weighing likelihood and consequence

Using your assessment likelihood of someone witnessing an opioid overdose and the consequence of not having naloxone available will allow you determine if your organization should consider stocking naloxone in your setting.



Likelihood High: You should consider naloxone

- Your assessment has indicated that the likelihood of an overdose occurring in settings where your staff operate is high.
- Staff should receive training to understand the signs of an overdose, be trained to administer naloxone as part of a response to someone experiencing an overdose.

Likelihood Low / Consequence High: You may want to consider naloxone

- Your assessment has indicated that the likelihood of overdose occurring in settings where your staff operate is low, but that the consequences of naloxone not being available should an overdose occur, are high.
- In this case, naloxone may be warranted *in small quantities* to ensure that any overdose could be reversed.

Likelihood Low / Consequence Low: Naloxone may not be needed in this setting

- Your assessment has indicated that the likelihood of overdose occurring in settings where your staff operate is low and that the consequences of naloxone not being available are low.
- Staff should still receive training to understand the signs of an overdose and the importance of calling for first responders without delay.

Part 2 – Formulation Considerations

Naloxone is available in both intramuscular (i.e., injectable) and intranasal (i.e., nasal spray) formulations. The Ministry of Health recommends the intramuscular naloxone formulation for the reasons detailed below and does not provide funding for intranasal naloxone. Organisations looking to naloxone should a) be able to justify why, and b) cover the costs without drawing down on other operating budgets. Any naloxone supply requires a process for rotating nearly expired product and for replacing the expired product.

Considerations for the intramuscular formulation:

- **Effectiveness** - the intranasal formulation must be absorbed through the blood vessels in the nose, so it *may not be as effective for some* people with a history of cocaine or methamphetamine use, scar tissue in the nose, or other congestion.
- **Cost:** As of March 2017, intranasal naloxone is more than five times the cost per dose than the intramuscular formulation.
- **Existing training supports:** The intramuscular formulation is used almost exclusively by hospitals, paramedics and other first responders, and other health professionals as well as community-based service providers. People with a history of drug use and those members of the public most likely to witness and respond to an overdose are eligible to receive an overdose response kit that contains intramuscular naloxone through the publicly-funded Take Home Naloxone program. The BCCDC provides overdose response training and intramuscular naloxone to eligible community organizations at no charge through the Facility Overdose Response Box program. Eligible sites must work with clients at risk of opioid overdose and may include shelters, supportive housing, friendship centres, and licensed and non-licensed non-profit community care facilities. As a result, many people have received training on this administration route.
- **Availability:** Intramuscular naloxone and overdose response training are available at many locations throughout the province including at community pharmacies and through the Take Home Naloxone program at no-cost for people likely to overdose or witness and respond to an overdose.
 - **Additional Supplies/Kit:** Most methods for procuring intramuscular naloxone include a kit with the drug, syringes, gloves, and a breathing mask to ensure people can provide breaths when responding to an overdose, something not provided for intranasal formulations.
- **Staff comfort and safety:** Overdose response kits containing intramuscular naloxone include automatically retracting needles, which virtually eliminates the risk of needle-stick injuries in the context of normal first aid use.
 - While there is a risk that someone may be combative when recovering after being given naloxone, this may happen regardless of the formulation as both forms require close contact. Needle-stick injuries have not proven to be of significant concern in this situation.

Considerations for the intranasal formulation:

- **Staff Comfort:** People may feel more comfortable with the idea of administering an intranasal product. Intranasal does not require disposal in a container for injection equipment.

- **Ease of Access:** Intranasal naloxone must be purchased directly from the supplier, either directly or through a pharmacy or distributor, and is not widely available in the province.
 - *Overdose response supplies such as gloves and breathing masks must be sourced separately.
 - **Training must be sourced separately.

Part 3 – Where to Access Naloxone

If your assessment shows that your organization should stock naloxone and that staff should receive overdose response training, you can access naloxone through the following channels:

Intramuscular Naloxone	
Are you an individual likely to experience or witness an overdose? (Not available for use by health staff, private business, or for OH&S purposes).	Take Home Naloxone (THN) program: Visit the Toward the Heart site locator or call 811 anytime day or night to find a site near you.
Are you an organization that works with clients likely to experience an overdose?	Facility Overdose Response Box program: Find program criteria at http://towardtheheart.com/naloxone/forb/ .
Are you an organization that people likely to experience an overdose are comfortable accessing service from AND operating in a region without a THN program?	Consider becoming a Take Home Naloxone site: Contact your local Harm Reduction Coordinator to find out more at http://towardtheheart.com .
Are you an individual or organization that does not qualify for the THN program or Facility Response box program, but assessment shows you should stock and train staff for naloxone?	Purchase from a pharmacy: Find a list of participating pharmacies at here .
Are you a health authority clinical program?	Connect with health authority leadership and see your organizational access protocols.
Intranasal Naloxone	
Would you like to acquire intranasal naloxone for yourself or organization?	Purchase from pharmacy or distributor.

Training Resources

In October 2016, regulations under the *Health Professions Act* and the *Emergency Health Services Act* were amended to enable anyone to administer naloxone when used to reverse opioid overdoses, regardless of the administration route. This allows people to respond to an overdose in settings where health care workers or emergency responders are not regularly employed or available. These regulatory changes were made to prevent further loss of life, to the extent possible, by enabling anyone to administer naloxone to someone appearing to be suffering from an overdose, in effect, making this a public domain activity. In light of these regulatory changes, WorkSafeBC has rendered an opinion that occupational first aid attendants can administer intramuscular naloxone to someone who has overdosed. However, in accordance with these regulatory changes, training on responding to an overdose and administering naloxone must be provided to anyone expected to use naloxone.

Intramuscular formulation

If you purchase intramuscular naloxone from a community pharmacy, training is provided by a pharmacist on site at that time of purchase in accordance with the guidance provided by the College of Pharmacists of British Columbia. A guide that provides information on overdose

prevention, recognition, and response (including how to administer intramuscular naloxone) is available at www.towardtheheart.com.

Intranasal formulation

Those accessing the intranasal formulation must also seek overdose recognition and response training, in accordance with legislative changes made by Health Canada.

- Training on identifying an overdose and the SAVE ME protocol is available at www.towardtheheart.com.
- Training on intranasal administration is available from the company that produces the intranasal product at <https://www.youtube.com/watch?v=hGVSaO1oxpg>.

Appendix A: Decision-Making Template

This template provides a way to assess the need for your organization to stock naloxone and train staff.

Organization:
Risk: [list all staff, client groups, and members of the public who may be at risk of an overdose]
Risk Identification and Mitigation Strategies: [provide an overview of risk for staff or clients/members of the public, and risk mitigation strategies as well as gaps that may exist]
Likelihood of overdose in this setting: High/Low (circle one) Comments:
Consequence of overdose in the absence of naloxone in this setting: High/Low (circle one) Comments:
Recommendations:

Recommended resource to walk through thinking about preparing for overdoses in your organization: [The First Seven Minutes Overdose Prevention](#).

Appendix B: Reporting Template

This template provides a means for your organization to report when staff have administered naloxone in response to an opioid overdose event. Your organization should develop reporting protocols to track naloxone use.

Organization:		
1. When did the overdose happen? _____ _____ _____ Day Month Year		<input type="checkbox"/> Don't Know
2. In what community did the overdose happen? _____		<input type="checkbox"/> Don't Know
3. Where did the overdose happen? _____		<input type="checkbox"/> Don't Know
4. Did someone call 911?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5. Did first responders arrive?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
6. Did someone provide rescue breathing?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7. How many doses were administered?		<input type="checkbox"/> Don't Know
8. Did the person survive?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Appendix C: Background

In April 2016, the BC Provincial Health Officer declared a public health emergency under the *Public Health Act* due to an unprecedented increase in the number of illegal drug overdose deaths in British Columbia.ⁱ In 2016, 922 people died from an apparent illegal drug overdose, an increase of over 80% from 2015 when 513 such deaths occurred.ⁱⁱ Of those who died of an illegal drug overdose in 2016, over 80% were male and more than half were between the ages of 30 and 49.ⁱⁱⁱ The introduction of highly toxic opioids, such as fentanyl and carfentanil, has contributed significantly to the increase in illegal drug overdose deaths in the province. For example, the proportion of apparent illegal drug overdose deaths with fentanyl detected (alone or in combination with other drugs) increased from 5% in 2012 to 60% for the period between January 1 and October 31, 2016.^{iv}

Symptoms of an Opioid Overdose

Opioids are a class of drug or medication which includes fentanyl, morphine, heroin, methadone, and oxycodone. They are most often prescribed for pain relief. However, opioids are now being found with other illegal drugs such as heroin and cocaine. Fentanyl is a synthetic opioid that is 50 to 100 times more toxic than morphine, which increases the risk of an accidental overdose.

An overdose occurs when the body is overwhelmed by exposure to something, in this case, a toxic amount of drug or combination of drugs which causes the body to be unable to maintain or monitor functions necessary for life. These are functions like breathing, heart rate, and regulating body temperature.^v The consequences of an opioid overdose can include catastrophic brain injury, cardiac arrest, and death. Early signs of an opioid overdose include:

- Not responsive
- Severe sleepiness
- Slow heartbeat
- Troubled or slowed breathing
- Trouble walking or talking
- Skin looks pale or blue, feels cold
- Pupils are pinned, or eyes rolled back
- Vomiting^{vi}

Responding to an Overdose

A drug overdose is an emergency health situation that requires immediate attention. Call 911 right away if you suspect an overdose. The sooner you call, the better the chance of recovery and preventing injury and death. If you have to leave the individual at any time (e.g., to get a phone or a naloxone kit), put them into the recovery position. While you are waiting for first responders to arrive, follow SAVE ME protocol outlined below:

S – Stimulate. Check if the person is responsive, can you wake them up?

A – Airway. Tilt the head back, look in the mouth, and make sure there is nothing in the mouth blocking the airway or stopping them from breathing.

V – Ventilate. Help them breathe. Plug the nose, tilt the head back and give one breath every 5 seconds.

E – Evaluate. Do you see any improvement?

M – Medication Administration (muscular injection). Inject a 1mL dose containing 0.4mg of naloxone into a large muscle or administer the intranasal formulation as per training. Continue providing breaths to the individual until they are breathing on their own.

E – Evaluate and Support. Is the person breathing? If they are not awake in three to five minutes, give one more dose of naloxone.

911 emergency dispatchers are there to support you through an emergency response. Follow the instructions that they provide; they may help you with further assessments and other interventions. This may include taking a pulse and providing chest compressions to individuals who have a weak or no pulse.

References

ⁱ Government of British Columbia. (2016, April 14). Provincial health officer declares public health emergency. Retrieved March 8, 2017, from: <https://news.gov.bc.ca/releases/2016HLTH0026-000568>.

ⁱⁱ BC Coroners Service. (2017). Illicit Drug Overdose Deaths in BC: January 1, 2007 – January 31, 2017. Retrieved March 8, 2017, from: <http://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/death-investigation/statistical/illicit-drug.pdf>.

ⁱⁱⁱ BC Coroners Service. (2017). Illicit Drug Overdose Deaths in BC: January 1, 2007 – January 31, 2017. Retrieved March 8, 2017, from: <http://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/death-investigation/statistical/illicit-drug.pdf>.

^{iv} BC Coroners Service. (2016). Fentanyl-Detected Illicit Drug Overdose Deaths: January 1, 2012 to October 31, 2016. Retrieved March 8, 2017, from: <http://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/death-investigation/statistical/fentanyl-detected-overdose.pdf>.

^v British Columbia Centre for Disease Control. (2017). Training Manual: Overdose Prevention, Recognition and Response. Retrieved March 8, 2017, from: http://towardtheheart.com/assets/uploads/THN%20Training%20Manual%20Final_2017.01.11.pdf.

^{vi} British Columbia Centre for Disease Control. (n.d.). Overdose Survival Guide. Retrieved March 8, 2017, from: http://towardtheheart.com/assets/uploads/files/OD_Survival_Guide_Tips_to_Save_a_Life_2012.08.29_up_right_for_website.pdf.